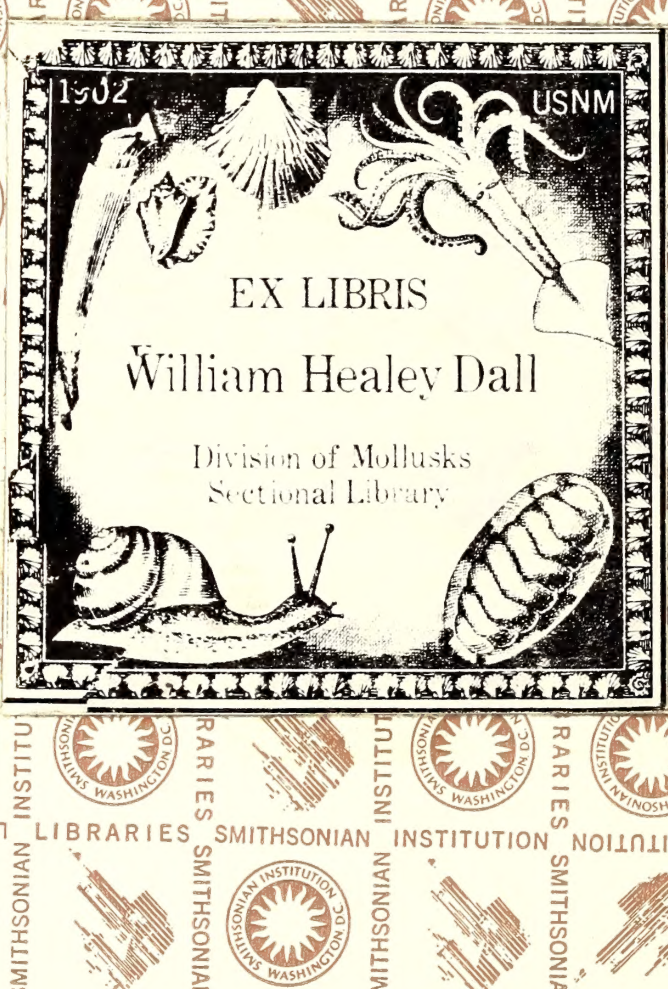

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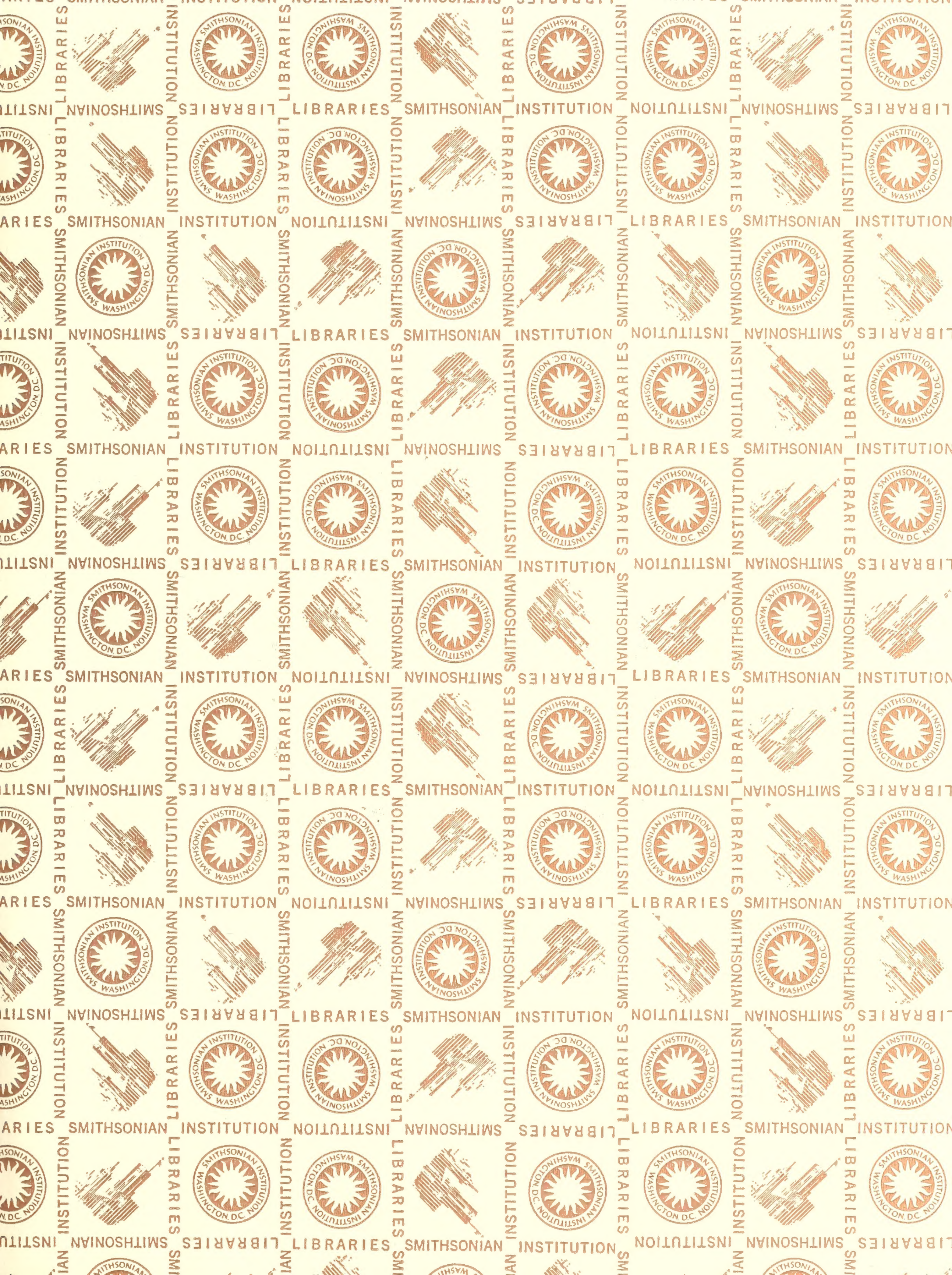

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MINUTES 189

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CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

Subscription $2.50 per year

John Q. Burch, Editor
4206 Halldale Ave.,
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This issue concludes exactly 19 years of this publication with John Q. Burch as editor. Many loyal friends have made this possible. I thank you.

It might have been possible to expand into a more pretentious journal,but to have done so would have destroyed the atmosphere of informal discussions.

The intention has been to defend the right to search for the truth, and to refuse at times, to continue the attempt to pound the well known square facts into the round holes given us by some authorities. Why should a challenge of any apparently accepted theory be a contraversial matter, and even if it does become such, will airing the clash of ideas necessarily be dissastrous ?

Is it not as well to quote directly the views of others when your own thoughts are derived from those views ? The choice of an excerpt from another's work should be sufficient, and preferable to merely presenting the same thought in your own words.We offer no other excuse for the frequent inclusion of direct quotations in these papers.

(con.)

The investigation of the family Olividae will continue into the ensuing year.

We expect to conclude with a check list of all names used by authors in this family that have come to our attention.Proper references will be given and this list will also serve as an index to the various issues of the Minutes in which we have assembled scattered literature and ventured some statements where there are clashes of opinion.

It is our custom to include statements with this issue. Our fiscal year runs from July 1. We are certainly one of the very few publications on mollusks entirely supported by those who wish to read it.

It is pleasing to note that our subscription list is growing steadily.

John Q. Burch

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New Publications

Indo-Pacific Mollusca- Monographs of the Marine Mollusks of the Tropical Western Pacific and the Indian Oceans.
Edited by R. Tucker Abbott
The issue at hand is Vol. 1,No.1,March 31,1959.

This issue contains the introduction outlibing the plan of the work, and the first monograph.

The Family Vasidae in the Indo-Pacific by R. Tucker Abbott.

The work is excellent. The figures are clear and a number of them in color. The monograph on this family is very welcome because several of the species resemble each other so closely at first glance that they may be easily confused.

In reading this fine paper I am pleased to note that I have but one important change to make in my labels. There is no question but that Dr. Abbott is correct in the gender of the specific name of Vasum (Vasum) turbinellus (Linne',1758),and the explanation is adequate. Nevertheless, I fear that it will be as difficult to abandon ' turbinellum' as it would be to adopt another name.

If you are not a subscriber, this series is a positive must for all serious collectors of marine shells. Mail your order with an initial $5.00 to The Department of Mollusks, Academy of Natural Sciences of Philadelphia,Philadelphia,Pennsylvania.

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Preliminary diagnoses of new genera and species of Pelecypods from Chile by Tron Soot-Ryen. Astarte-No.16,Oct/,1957-Tromso Museum, Tromso,Norway.

The new descriptions are of- Genus Malletiella ,Type species, Malletia pacifica Dall 1897- Malletiella sorror- Philobrya brattstrømi- Lyonsia elegantula- Genus Kingiella, Type species Kingiella chilenica n. sp.- Cyamiocardium dahli- Neolepton hupei- Lasaea helenae- Mysella sculpta- Chione (Nioche) keenae- .

* * * * * * * *

On a small collection of pelecypods from Peru to Panama-by Tron Soot-Ryen. Repts. of the Lund University Chile Expedition 1948-49 Lund,1957. The paper gives a number of extensions of range and one new species is described- Leptomya ecuadoriana , type locality, Puna,outside Guayaquil,Ecuador, 8 fms.,clay.

Olivella volutella (Lamarck,1811) Ann.Mus.Hist.Nat.Paris,vol.16, p.322,no.43.
Swainson,1823,Zool.Illust. ser.2,pl.40,fig.1-Duclos,1835,Mon.Oliva, pl.6,figs.7-14- Reeve,1850,Conch.Icon. vol.6,Oliva, pl.21,fig.54- Gray,1839, in Beechey Voy.,p.131-Sowerby,1839,Man. no.561,fig.560- Duclos,1843,in Chenu Ill.Conch.,pl.7,figs.7-14- Souleyet,1844,Voy. Bonite,Moll.,pl.45,figs.22-24- Lamarck,1844, Anim.Sans Vert.,X, 623, no.43, Desh. Ed.- C.B. Adams, 1852, Cat.Shells..Panama,p.57, no.41- P.P. Carpenter,1856, Rept.p.282,340- do- 1863, Rept.,p.638, 542,577- Marrat,1871, Thes.Conch.,vol.4,Oliva, p.29,no.152,pl.22 (349),figs.362-367- Dall,1910,Proc.U.S. Natl.Mus.,vol.37,no.1704, p.211- Journ. of Conch.,vol.18,p.157- Proc.Calif.Acad.Sci.4,19, p.19-Proc.Acad.Nat.Sci.Phil.,vol.84,p.113- Smith,Maxwell,1944, Panamic Marine Shells,p.35,fig.447- Olsson,Axel A.,Proc.Acad.Nat. Sci.Phil.,vol.107,p.204,pl.11,figs.2,2a- Keen,A. Myra,Sea Shells of Tropical West America,1958,p.426,fig.640.

Reeve,Conch.Icon.,pl.21,Species 54,a,b,c- " The Little Volute Olive-Shell oblong-cylindrical,spire exserted,sharp at the apex,columellar plaits numerous,all basal;blue-grey or brown-purple,unspotted,sut--ures and basal zone chectnut brown,sometimes but rarely,pale yellow columella whitish,interior of the aperture very dark chestnut. Hab.-Panama (on mud banks at low water); Cuming. The whole of the columellar plaits of this species are upon the callous basal zone. The shell varies in colour from a blue-green to a very dark chestnut purple." End Reeve quote.

C.B.Adams,1852, Cat.Shells,Panama,no.41," This species we found alive in vast numbers, over an extent of many acres,on the sand beach west of the city of Panama. They were most numerous where the beach had a gentle slope,about midway between high and low water mark.Some time after the retreat of the tide they were found crawling about with much vivacity on the wet sand. The shell,while the animal was moving, was wholly covered with the mantle,and the mantle was entirely concealed with a thick coat of sand. When the first wave of the returning tide struck them,washing off their coats of sand,they instantly buried themselves.Frequently,however, I passed over this spot without seeing any of them. They were also found,but in less numbers,just above the low water mark of the neap tides,on sandy flats near the beach above mentioned.
H abitat.- Shores of Mexico; Humboldt and Bonpland! Lamarck. Isthmus;Swainson Unknown; Wood " End Adams quote.

Swainson,Zool.Ill.,London,1829- " Shell ovate conic,mitriform; chestnut,the body whorl bluish; spire lengthened, acute;pillar with 6-7,slender,regular plaits." End Swainson quote.

Tryon,Man.Conch.,1883,Oliva, p.73,pl.17,figs.49-51- " Yellowish, bluish gray,chestnut or chocolate colored; the spire and fasciole often yellowish and the body whorl darker colored; the latter sometimes faintly marked with longitudinal zigzag strigations; interior of aperture yellowish to chocolate-brown. Panama to Gulf of California. O. rasamola Duclos (fig.51), and O. selasia Duclos are synonyms; the latter founded on a water worn specimen." End Tryon quote.
Note- O. rasamola (Duclos) (Tryon) = razamola (Duclos)

Olsson,Axel A., Proc. ANSP 107,p.204,pl.11,figs.2,2a "This species is very abundant at Panama where it may be seen gliding over slimy mud flats in large numbers. Coloration varied from nearly pure white varieties through shades of gray to rich deep brown, (con.)

the fasciole often remaining white, or the whole shell may be of one color. It is distinguished from all other Olivellas by its unique pillar structure consisting of fine, uniform lirations which encircle the columella,covering the fasciolar portion but not extending upward over the parietal wall. The radular ribbon is small; in an ~~n~~ example extracted, the length of the ribbon is .85 mm,width .35 mm, width of an individual r~~h~~achidian tooth .10 mm or less. The rachidian tooth is generally narrow,elongate,curved,crown-shaped, the basal margin quite straight,curving towards the ends, the upper margin multicuspidate (32 or more cusps),which are fairly large and uniform in the middle zone,diminish in size towards the ends. Lateral teeth are formed by flattened, curved blades, rounded at the ends,accessory, basal plate rectangular.
Range.- Mexico to Ecuador. Ecuador: Limones,Galeras. Colombia: Isla del Gallo, near Tumaco. Panama: Puerto Mensabi;Pearl Islands; Garachine;Rio Chiman;Isla Chepillo;Panama City;Amador Bar;Venado Beach;Burica peninsula." End Olsson quote.

Olsson places the species in subgenus Lamprodoma Swainson,1840 of which it is the type species.

A. Myra Keen,Sea Shells of Tropical West America,1958, p.426,fig. 640, " Though the color varies,the commonest pattern is a uniform brown with a white fasciole. The distinguishing feature is the structure of the pillar,with fine lirations encircling the columella and running across the fasciole but not up on the face of the whorl. ..." End Keen quote.

Distribution: Herbert N. Lowe,Nautilus, 45:75,79 reports from Corinto,Central America, " On the mud flats across the bay from town were great colonies of Olivella volutella in six distinct beautiful color forms", and on p.79 from Puntarenas, " Many fine color forms of Olivella volutella". B.R. Bales,Nautilus,52:45, 1938 reports the species from Acapulco. Maxwell Smith in Panamic Marine Shells,p.35 lists the range Gulf of Calif. to Payta,Peru. Weinkauff,1878, 29:4-8, lists from Panama and Acapulco.

Some of the specimens noted- The Burch collection- Very large lot of several thousands from Tehuantepec,Mexico, Marshall Sohl leg.,Feb.,1954 containing many very large specimens ranging to near 30 mm. Another large set from Panama City,Panama, ex. James Zetek, Dec.1935. Large series from Salina Cruz,Mex.- Isla Grande, Mex. in 10 fms.- many sets from Panama Bay- San Jose,-Guatemala-set labelled Chorrera Beach,Pacific Canal Zone,R.V.Machis leg. 10/1954," just below tide line".

Calif.Acad. of Sciences- # 29791,Isla Grande Bay, W. Mex.-
17894B Isla Encantata,Corinto,Nicaragua,Crocker Beebe Exped-
17894A Corinto,Nicaragua, Crocker-Beebe Exped;

Stanford Univ. Coll.- 1420 Magdalena Bay-8216 Pearl Islands, Panama, James Zetek.

H.R. Hill,Nautilus, vol.68, p.69 united O. zanoeta (Duclos) with this species , and thought it to be a variety of O. volutella. However, we have found them quite distinct.

O. caerulea Wood,1828, Index. Test. Suppl.pl.4,fig.36 is another synonym of O. volutella (Lamarck,1811).

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Olivella zanoeta (Duclos,1835) Mon.Oliva, pl.2,figs.9,10. Reeve,1850,Conch.Icon.,vol.6,Oliva, pl.26,figs.76a,b- Marrat,1871 Thes.Conch.,vol.4,Oliva,p.34, no.176,pl.23(350),fig.404-Olsson,A.A. Proc. ANSP,vol.107,p204,pl.11,figs.1,1a,1b- Keen,1958,Seashells Trop.WestAm/,p.427,fig.645.

A large part of the references to this species have used the name O. zonalis (Lamarck). However, this is by no means unanimous. Others have given the name O. zonalis to forms of O. semistriata, O. volutella etc. This confusion will be discussed at the close of references on this species, O. zanoeta.

Reeve,Conch.Icon,,pl.26,species 76- "Oliva zanoeta- The Horny Olive. Shell accuminately oblong,rather thin,somewhat effused and truncated at the base,columella plaited towards the base,plaits rather small;whitish,broadly two-banded with purple-brown,rather transparent, as if horny,with a narrow opake yellowish band at the base...A very distinct species,remarkable for its shining horny appearance,whilst the dark purple-brown bands which encircle the shell are seen through in the interior." End Reeve quote.

Tryon, Man.Conch.,1883,vol.5,p.67,pl.15,fig.69. Tryon considered the species as O. zonalis (Lam.) , but his figure is a copy of Duclos, pl.2,fig.9 of O. zanoeta. Tryon's brief comment follows, " White,with three chestnut revolving bands,about same width at the interspaces. Length, 5-6 mill. Mazatlan. ..O. zanoeta Duclos,fig. 69, appears to be a larger specimen or magnified figure of this species." End Tryon quote.

Axel A. Olsson, Proc. ANSP,vol.107,p.204,pl.11,figs.1,1a,1b-. Olsson described a new subgenus as follows:
Zanoetella Olsson,1956 Type. Olivella zanoeta (Duclos).
" Shell of medium size, with elevated, pointed spire. Color white, brown,more often zoned.Parietal callus extending beyond the end of aperture to the suture,its surface smooth.Pillar structure simple, consisting of 4 or 5,long lirations around the anterior end of pillar. Fasciole unequally divided by an incised line,the upper segment relatively narrow. Radular ribbon quite small,with about 31 rows of teeth, the rachidian tooth, narrowly bow-shaped, with numerous (about 30) cusps,subequal in the middle,fading out towards the ends;laterals uncinate, with strongly curved,pointed ends."

Olsson quote continues, " Olivella (Zanoetella) zanoeta (Duclos) Shell oliviform,with an elevated, sharply pointed spire,nearly half the total length, the greatest convexity placed opposite the end of aperture.Sutures deeply grooved,partly overhung by the sharp margin of the whorl in front. Color is sometimes pure white but more often zoned by two purple-brown bands separated by white, the lower band widest and bordering the fasciole, the upper band,narrower and bordering the suture;occasionally the color is a uniform brown,the middle white band changing to yellow or fading out completely.Fasciole white or brown.Internal whorls of the spire reabsorbed. Length generally between 16 to 18 mm. ... This species is common along the coast of Ecuador,southern Colombia and Panama. Duclos and Reeve mention mo locality for the species but their figure leaves no doubt of identification. Marrat gives a recognizable figure and cites Acapulco,Guatemala and California as localities. Weinkauff gives both Japan and Westamerica. Bartsdh has redescribed the species as Olivella guayaquilensis from specimens obtained at Salinas,Ecuador. A radula extracted from a specimen submitted to us by Captain W.S. Bitler, U.S. Navy,formerly stationed at Balboa,Canal Zone has the following characters. (con.)

Radular ribbon small,with about 31 rows of teeth.Rachidian tooth, narrow,linear and strongly curved, the small cusps placed on the outer or convex side;there are 30 to 35 cusps,the central ones (8-10) quite large and uniform,the lateral ones diminish in size and fade out completely at the ends. The rachidian tooth is about .1 mm. wide.Lateral teeth form uncinate blades,strongly curved and pointed at the tips. Range-Ecuador to Mexico. Panama: Vedado Beach in the Canal Zone.Guanico. Colombia:Tumaco (common).Ecuador:Santa Elena. Manta. Mexico: Mazatlan (Hawkins),USNM.56747." End Olsson quote.

Keen,Sea Shells Trop.W.Am.,1958,p.427,fig.645," This is the O.zonalis of authors (not of Lamarck), a white shell with two purple-brown spiral bands. It is the type of the subgenus (Zanoetella) About 17 mm. in length. The northern part of the Gulf of California to Ecuador; not uncommon. " End Keen quote.

A few other references- Weinkauff,1878, 31:9,10, Japan (?), West-america.- Proc.Acad.Nat.Sci.Phil.,vol.84,p.113- Trans.San Diego Soc.Nat.Hist. vol.8,p.30.

Distribution- specimens noted- Burch collection, Isla Grande Bay, West Mexico in 10 fms., Geo. Willett leg.; Chamela Bay, West Mexico; Puertocito,Baja Calif., Mrs. D. Brown leg., April,1958;Punta Penasco,Mexico, H.N. Lowe, 1935. Dr. D. Shasky collected a fine series from Puertacita,Baja Calif., April 4-5 and May 2 & 3,1958.This set contains one specimen of interest in that it is an albino form of lemon yellow lacking all pattern. Others are banded in a number of forms, others are entirely dark brown or dark gray, other than the thin light line at the fasciole.

Some of the sets in the San Diego Museum labelled O. zonalis,but of this form are- San Blas, ex A.M. Strong;Kino Bay, ex H.N. Lowe 1935;Mazatlan, H.N. Lowe,1930;Punta Penasco,Mex. ex. Lowe,1934; Corinto,Nicaragua,Lowe,1934;San Felipe,Lower Calif., Lowe,1935; set labelled O. guayaquilensis Bartsch from Peru.

Stanford University collection, #46492 from Panama.

California Acad. of Sciences- 33154,Rocky Point,Sonora,Mex. O. B Bryant Coll.;29741 Isla Grande B ay, West Mexico, 10 fms.;27217 Tenacatita Bay,Jalisco;29043 San Jose,Guatemala 10-15 fms.;33315 San Juanico Arroya,Lower Calif.; 27223 Mazatlan,Sinaloa,Mex.; 32347 Manzanillo,Mex.; 17912 Corinto,Nicaragua in 12-13 fms., Crocker-Beebe Exped. Gifford Coll. in Calif. Acad.- very large series from Santiago Bay,Colima, Feb.2,1946; Rocky Point Bay, Sonora.

Maxwell Smith, Panamic Marine Shells,p.35,fig.435, 1944 lists the species as O. zonalis (Lamarck) . However,Smith's figure seems to be the species under discussion, and Smith places O. zanoeta Duclos in synonymy. Smith lists the range from Mazatlan to Guayaquil.

Olivella zonalis Dall,1910 Proc. U.S. Nat.Mus. vol.37,no.1704, p.211 (not of Lamarck) = O. zanoeta.

Olivella guayaquilensis Bartsch,1928,Jour.Wash.Acad.Sci. vol.18, p.67,pl.1,fig.10 = O. zanoeta.

Zetek's Panama List (Fauna) p.555

Olivella zonalis (Lamarck,1810 Anim.sans Vert.,v.10,p.631,no.61, Desh. Ed.- This species has been a source of general uncertainty. Sets in the Burch collection from Tampa Bay, Florida are Olivella mutica (Say), (stated to be ex.Hugh Fulton). P.P. Carpenter, Mazatlan Cat.,No.601-do,Rept.1856,p.171,262,339-do,Rept.1865,p.538, 625- = Olivella semistriata (Gray,1839). Reeve,Conch.Icon., pl.29.fig.91 seems to be the same.

Lamprodoma Swainson,1840 Malacol.132,321,1840 Subgenus of Olivella - The following description of this subgenus is from Axel A. Olsson,Proc.ANSP,vol.107,1956,p.203. " Type by monotypy; Oliva volutella Lamarck. Recent,Panamic-Pacific province. Shell spindle shaped, of medium size, with a high spire.Parietal callus heavy,thickest near the end of aperture and extending upward towards the suture. Pillar structure formed by a series of uniform, narrow,mitra-like lirations which revolve outwardly around the lower end of inner lip,covering the columellar portion but not extending above the fasciolar portion.Color variable,in shades of white, brown to nearly black.Radula relatively small,the rachidian tooth narrowly elongate,curved, with numerous, small,subequal cusps, the lateral teeth large,flattened,curved blades,rounded at the end. Operculum chitinous.Internal walls of the spire-whorls reabsorbed.# End Olsson quote.

Macgintiella Olssoh,1956 Proc. ANSP,vol.107,p.205. SubGen.Olivella " Type. Olivella watermani McGinty. Shell small,bullet-shaped with a low,conic spire, the body-whorl large,subelliptical.Parietal callus strong,extending past the end of the aperture to the suture, thickening the surface of the spire-whorls.Pillar structure much as in Olivella s.s.,consisting of a large,plaited lower portion followed by small denticles or lirations along the parietal wall, the inner side of the pillar wall deeply excavated.Outer lip thin passing well above the end of aperture,its junction with the body-whorl forming a long,narrow commissure joining the grooved suture above.Operculum chitinous. Radula: rachidian tooth inversely hat-shaped,with a deep,central convex base,the sides narrowed and lid-like,the outer or cutting margin concave with numerous, small, single or double-rooted cusps, of nearly equal strength along it. Laterals are solid, hooked,uncinates with recurved tips and notched base;basal plate rectangular...Distinguished by its bullet shaped shell with a relatively low spire and long, narrow,commissural canal along the lip junction.The peculiarly shaped rachidian tooth of O. watermani (the only Recent species so far examined) is completely different from that shown by any other Olivella." End Olsson quote.

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Olivella watermani McGinty,1940 Nautilus vol.54,p.64,pl.3,figs. 4,5- The original description follows," Shell solid,whorls about 4, with a short conic spire;suture caniculate,deep and narrow;columellar area with a strong raised callus,an upper and lower set of columellar plications;lip about four fifths the length of the shell, with upper third of aperture closed off by the heavy callus.Color white with three rather obscure suffused bands of pink,orange or yellow spots on the last whorl. Length 10.5 mm,width 4.6 mm. Length 9.6 mm.,width 4.5 mm. The type, 176446 A.N.S.P., was dredged off Palm Beach,Florida, in 80 fathoms, marl bottom. Paratypes in the Waterman collection, Palm Beach. Named in honor of Dr. George A. Waterman." End McGinty quote.

R. Tucker Abbott, Nautilus,vol.64,no.4,p.114,pl.7,figs.5a-b, 1951, gives a description of the species with the following remarks, " Range and records.- Off Palm Beach to Key West,Florida from 28 to 100 fathoms. In the majority of the 91 dredging stations from which we have specimens, the largest series came from depths of 50 to 70 fathoms. One of Dall's paratypes of Olivella jaspidea var. rotunda from off Sombrero,72 fms. is this species.Typical rotunda is extremely close,but seems to differ in having a longer aperture very bulbous callus on the upper part of the parietal wall and in having an axial color pattern." End Abbott quote.

Axel A. Olsson,Proc.Acad.Nat.Sci.Phil.,vol.107,p.206,pl.15,figs. 10,10a, gives a description and figures the species-O.watermani adding the following remarks," Typical watermani is a species of the Florida East Coast and commonly dredged in waters of 50 to 100 fms.The form is closely related to O. rotunda Dall of the West Indies,differing principally by its somewhat smaller size. Gulf of Mexico specimens are generally larger than those from the east coast of Florida but otherwise are closely similar." End Olsson quote.

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Olivella rotunda Dall,1889 Blake Report, Bull.Mus.Comp.Zool.,vol. 18,pt.2,pp.134,135 as Olivella jaspidea var rotunda.
Olivella rotunda Dall, Dall and Simpson,1901,U.S. Fish Comm. Bull. for 1900,vol.1,p.392,pl.56,fig.11.
Olsson,Axel A.,Proc. ANSP,vol.107,1956,p.207,pl.15,fig.9.

Olsson places this species in subgenus Macgintiella. The des--cription and figures are very similar to those of the species described above.

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Olivella fuscocincta Dall,1889 Blake Report, Mus. Comp. Zool., vol.18, no.29,pt.2,p.134,
Olsson, Proc. ANSP,vol.107,1956,p.207,pl.11, figs.6,6a. Olsson describes this species as follows," Shell relatively small,egg-shaped with a large,convex body-whorl and a short spire of about 5 whorls. Sutures grooved.Parietal callus extends to the end of aperture and a short ways above it. The pillar structure is formed by a plaited fold at the end of the columella,somewhat like that of Callianax but succeeded above by 4 small lirations of the parietal wall.Lip thin,sharp,smooth within.Color is a light cream with a faint white band around the middle,the fasciole more heavily colored by a brown band, the pillar fold itself white. Length 9.5 mm.,diameter 5 mm. Type, USNM, no.62703, sta.36. off Barbados, in 84 fms.)...Through the courtesy of Dr. H. Rehder, we are able to present figures of two specimens of the hitherto unfigured species from the original lot..." End Olsson quote.

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Olivella rosolina (Duclos),1835 Mon.Oliva.,pl.1,figs.1,2
Marrat,1871,Thes.Conch.,vol.4,Oliva,p.38,no.204,pl.24(350),fig.436
Tryon,1883,Man.Conch.,vol.5,p.65,pl.14,fig.58.
Olsson, Proc. AN SP ,vol.107,1956,p.208,pl.10,figs.6,6a

Tryon describes this species as follows," Shell flesh-color with distant zigzag brown markings;columella tinged with rose color. Length, 7 mill. West Indies. I am unacquainted with this species, which, except in its columella being colored , does not seem to differ from O. verreauxi Ducros. O. sowerbyi Ducros (fig.59), and O. volutelloides Marrat (fig.60) are synonyma." End Tryon quote.

Olsson places the species in the subgenus Macgintiella.

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Olivella walkeri Berry,1958 Leaflets in Malacology, vol.1,no.15 (published by the author). First figured in Keen,Sea Shells of Tropical West.Am.,1958,p.426,fig.640a and described " A whitish shell with ivory-yellow spire and fasciole and indistinct brown markings, especially below the suture. Length, 10.5 mm.; diameter, 5.2 mm. Near Guaymas,Mexico; rare." End Keen quote.

Placed in subgenus Macgintiella.

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Olivella nivea (Gmelin),1790 Voluta nivea Gmelin,1790, Syst. Nat.,ed.13,p.3442. Based on Martini,1773,Syst.Conch.
Oliva eburnea Lamarck,1811,An.Mus.Hist.Nat.Paris,vol.16,p.336-Lamarck,1844,Hist.nat.An.s.Vert.,ed.2 (Deshayes),vol.10,p.630-Swainson,1831,Zool.Ill., ser.2,vol.2,pl.58,fig.2- Duclos, 1835,Mon.Oliva,pl.1,figs.13-16.
Oliva nivea Gmelin, Reeve,1850, Conch.Icon.,vol.6,Oliva,pl.23,figs. 64a,b
Oliva monilifera Reeve,1850, pl.27,figs.84,a,b
Oliva parvula Martini, Marrat,1871, Thes.Conch.,vol.4,Oliva, p.30, no.157,pl.22,(349),fig.373
Oliva nivea Gmelin,Weinkauff, 1878, Die Gattung Oliva, Syst.Conch., Cabinet,p.136,pl.3,figs.17,18; pl.35,figs.9,10; pl.37,figs.3,4.
Tryon,1883,Man.Conch.,vol.5,p.67,pl.15,figs.74-89
Maxwell Smith,East Coast Shells,1941,p.132,pl.51,fig.11,pl.50,fig.8
R. Tucker Abbott,1951,Nautilus,vol.64,p.115,pl.7,figs.4a-b -1955, American Seashells,p.246,pl.11,figs.h,j -1958,Monc.ANSP, no.11, pp.81,82 ,Marine Moll.Grand Cayman Id.
Axel A. Olsson,Proc. ANSP,vol.107,1956, p.172,pl.11,figs.3,3a,b

Abbott,Am.Seashells,p.246 describes as follows," 1/2 to 1 inch in length,whorls about 7,apex shortly pointed;nucleus small,white,tan, or purple. Suture channel is deep and fairly wide; with a strongly concave,etched spiral indentation on the side of the preceding whorl.Color variable,usually cream white with orange,tan or purple occuring in clumps in a spiral series just below the suture and just above the fasciole. Fasciole lacks color.Common from shore to 25 fathoms. Compare with jaspidea which has a more bulbous apex. S.E. Fla. to West Indies and Bermuda." End Abbott quote.

Reported from Parana,Brazil by Carlos N. Gofferje,Arq.Mus.Paranaensee,1950.

Tryon placed the following in the synonymy, O. parvula Marrat, O.oryza Lam.,O. guildingi Reeve,O. monilifera Reeve,O.pulchella Rve., O. dealbata Reeve,O. rubra Marrat,O.fulgida Reeve,O.inconspicua Marrat,O. reevei Ducros,O.diadocus Ads. & Rve.,O.cuneata Marrat, O.scurra Marrat,O. myriadina Marrat, not Duclos,O.miliacea Marrat, and O. lactea Marrat.

Sets of O.nivea examined and noted- N. side of Providence Id., Bahamas,F.D. Ford; Sarasota,Fla.; Terracea Bay,Fla;Yucatan,Quintano Roo;Bimini Ids.,Foster Huntington leg.; Miami,Fla. ex. H.N. Lowe; Maceio,Algoas,Brazil ex. E.C. Rios;Little Duck Key, Ex. Frederick Bayer;several sets in the Burch collection from the Bahammas,some have been labelled by other collectors as O. parvula,O.cuneata, O.monilifera,O. oryza,O. fulgida ..

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Olivella nivea chiriquiensis Olsson,1956 Proc. ANSP,vol.107,p.173, pl.11,fig.4. The author states," This subspecies differs from the typical form by its constantly smaller size,shorter less attenuated nucleus and often deeper color...." Length 15.8 mm.,diameter 5.8 mm. North coast of Panama. Bocas del Toro.

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Olivella floralia (Duclos,1853) Chenu,Illustr.Conch.,vol.4,p.6 Ducros,1857,Revue Critique de Genre Oliva,p.103.
Oliva oryza Duclos,1835, Mon.Oliva, pl.1,figs.9,10- Duclos,Chenu, 1853,Illustr.Conch.,vol.4,pl.1,figs.9,10.-- Reeve,1850,Conch.Icon., vol.6,Oliva, pl.27,figs.81,a,b (Not of Lamarck,1822)
Olivella oryza (Lamarck),Dall and Simpson,1901,U.S. Comm. of Fish and Fisheries Bull. for 1900, vol.1,p.392 (not of Lamarck).
Olivella floralia (Duclos), Perry, 1940,Bulls.Amer.Paleont.,vol. 26,no.95, p.159,pl.36,fig.249--Perry and Schwengel,1955, Marine Shells of West Florida,p.176,pl.36,fig.249.
Tryon,Man.Conch.,vol.5,1883,p.68,pl.15,fig.98;pl.16,figs.99,100,2,3
Maxwell Smith,1941, East Coast Shells,p.132,pl.50,fig.7
R. Tucker Abbott,1955,American Seashells,p.247
Axel A. Olsson,1956,Proc. ANSP, places the species in the subgenus Olivella , and discusses the species in part as follows," Shell small,slender,elongate,with an elevated sharply pointed spire of about 6 whorls, the nucleus minute. Color often a milky white grading to subtranslucent,often with the spire colored gray,brown, yellow or rose-pink,sometimes with the body whorl mottled or flecked with brown.Sutures distinct,narrowly or deeply grooved.Parietal callus thin,narrow,extending upward beyond the end of the aperture towards the suture.Columellar wall excavated,usually showing some corrosion.Pillar structure is formed by a series of small,parallel lirae above the basal fold. Fasciole double....This common Florida species was first well illustrated by Duclos as Oliva oryza Lamarck, also again under the same name by Reeve. Lamarck's description of oryza by itself is too brief for identification, but the figure referred to in the synonymy in Martini,Conch. Cab.,vol.2,pl.50, fig.348 represents the back view of a small shell with a medium height spire and strongly calloused penultimate whorl. This figure does not represent the shell of the floralia type and may be an immature mutica or minuta. The name floralia was used by Duclos in the text of Chenu's Illustrations,but no similar correction was made to the explanation of plates, the species there being labeled O. oryza. From O. nivea , this species is separated by its much smaller size,more slender form and a much higher, more sharply pointed spire. From small specimens of nivea , the finer lirations of the parietal wall and less deeply excavated pillar are helpful in distinguishing the species. Two color forms are present; commonly the shell is pure white, with an occasional one in each lot having a colored spire which may be yellow,gray to a beautiful rose pink, only rarely do all the specimens from the same locality show uniformly white shells;the other color form has the body whorl marked or flecked with brown. This is the common Olivella in Florida ,distributed along both east and west coast. Dall gives its range as Hatteras to Tortola..." End Olsson quote.

Some of the specimens in the Burch collection are:- Cortex,Fla. ex. Adele B. Koto; Carlos Pass, Fla.; Sarasota,Fla.; Marco, 2 fms.; S.Coast, New Providence Island,Bahamas,P.D. Ford,1941;Boca Raton, Fla. ex. John J. Schmidt Jr.; Duck Key,Florida Keys, Ex. B.R. Bales; Grassy Key,Fla.; Bonita Springs,Fla.; Bahia Honda Key..

Tryon adds O. elongata (Marrat,1871) to the synonymy.

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Olivella stegeri Olsson,1956 Proc. ANSP,vol.107,p.176,pl.14, fig.10. - Holotype ANSP 194587 . Following the description the author comments," This is a very striking species,distinguished by its solid,porcellaneous shell,usually white or light brown,the fasciole white.Pillar structure strong. 100 mi.E. of Alacran,Mex. in 28 fathoms.

Olivella macgintyi Olsson,1956 Proc. ANSP,vol.107,p.175,pl.12,fig. 3.
Length 10 mm.,diameter 4.3 mm. Holotype, McGinty collection. Placed in the subgenus Olivella. Following the detailed description, the author remarks," Based on a single specimen dredged off Palm Beach,Florida in 20 fathoms (rocky reef) by Thomas L. McGinty, 1940, for whom the species is named. Much like Olivella canaliculata Gabb from the Miocene of Santo Domingo, but much smaller and with a different pillar structure."

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Olivella mutica (Say,1822) An account of some of the marine shells of the United States, Jour.Acad.Nat.Sci.Phil.,vol.2,p.228.
Duclos,1835,Mon.Oliva, pl.2,figs.5-8--Duclos,1845,Chenu,Illustr. Conch.pl.2,figs.5-8--Ducrox,1857,Revue Critique de Genre Oliva,p. 96.
Oliva rufifasciata Reeve,1850,Conch.Icon.,vol.6,Oliva, pl.28,figs. 88,a,b.-- Marrat,1871,Thes.Conch.,vol.4,p.29,no.149,pl.25(351), fig.449.
Oliva fimbriata Reeve,1850,Conch.Icon.,vol.6,Oliva, pl.29,figs. 92,a-d-- Marrat,1871,p.29,no.148,pl.21 (348),fig.355
Olivella mutica (Say) ,Dall,1889,Blake Report,Bull.Mus.Comp.Zool., vol.18,pt.2,pp.133,134,pl.34,figs.1,a-r,2.
Weinkauff,1878, 36,4-8.
Tryon, Man.Conch.,1883,vol.5,p.64,pl.14,figs.43-55
Maxwell Smith, East Coast Shells,1941,p.132,pl.50,fig.6;pl.64,figs. 1,2
R.Tucker Abbott,1951,Nautilus,vol.64,p.116-- American Seashells, 1955,p.246,pl.22v.
Axel A. Olsson,1956,Proc. ANSP,vol.107,p.184,pl.9,figs.7,7a,7b.
Olsson places the species in subgenus Dactylidia ,and discusses as follows, " Shell suboval,white or yellowish-white;body whorl with about three revolving maculated bands of pale rufous, of which the superior one is continued upon the spire,the intermediate one is dilated so as to be sometimes confluent with the inferior one,which is narrowest;spire short;suture very narrow;columella destitute of striae. Length not more than two-fifths of an inch. Inhabits the southern shores. Cabinet of the Academy and Philadelphia Museum. A common shell, varying somewhat in colour; the bands are sometimes deep reddish-brown,sometimes livid,rarely all united and offering only a white line near the base.It seems allied to O. zonalis as described by Lamarck, but is a larger species." (Say,1822) Quoting Olsson," No figure of mutica was given by Say but his description,quoted above, applies well to the Florida form of this common species. He mentioned three revolving maculated bands,the superior one continued upon the spire, the intermediate one dilated so as to be confluent with the inner one. This condition is generally found amongst shells collected at Lake Worth as well as Reeve's fimbriata. Reeve's fimbriata may be accepted as a subspecific name for such shells which have the sutural color band formed by a series of broken brown lines or frills. The more northerly form of mutica has the spiral bands in solid color,usually narrower and alternatingly deep brown and white,the spire whorls being usually yellow. Earliest and best figures of mutica are those of Duclos,his figures 5 and 6 depicting the northern form with narrow color bands and yellow spire, while his figure 7 (mutica var.) is the commoner southern form to which Reeve later gave the name " fimbriata" (Plate 9,figs. 6,6a). Olivella mutica has often been recorded as a fossil species but most records below the Pliocene refer to some other

species. ... Range- Cape H atteras southward along the coasts of Florida and to the Bahamas." End Olsson quote.

Carlos N. Gofferje, Contribuicao A Zoogeogeografia Da Malacofauna Do Litoral Do Estado Do Parana, Arquivos Do Museu Paranaense Curtiba,1950. The author listed a species as follows,Olivella mutica petiolita Dall,1889 . This is mentioned for the locality with a question as to what species the author had in hand. The dimensions given indicate small and possibly juvenile specimens.

R. Tucker Abbott,Nautilus 64,p.116 gives a note on the species as follows," I would like to point out that Tomlin (Nautilus,1934, vol.48,p.71) was probably unwise in suggesting that Porphyria minuta Link ,1807, was an earlier name for our common eastern species, O. minuta Say,1822. Link's name is based on Martini's Conch.Cab.,vol.2,pl.50,f.545, which is a West Indian species. It is much fatter than O. mutica , with axial zigzag color lines on the outer shell and on the inside of the inner lip, and whose columella is cut-away or narrowed sharply at the base." End Quote.

Specimens noted- The Burch collection contains many sets from various localities in Florida- Port Tampa,Fla. ex. E.J? Post,1945; Sanibal Island, e.. John J. Schmidt Jr.; Sarasota Bay, ex. V.F. Saxton; Atlantic beach,North Carolina, ex. A.G. Hackney,1943. A set from St. Thomas, West Indies labelled O. rufifasciata (Reeve); several other sets also labelled rufifasciata, some using the name as a subspecies. It may be added here that we have a number of large sets from Margarita Island,Venezuela and other Caribbean localities. These have been sent to us assigned to Olivella mutica (Say), but following Dr. Olsson's diagnosis, and Dr. Abbott's comments, we are placing these under Olivella minuta (Link).

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Olivella dealbata (Reeve,1850) Conch.Icon.,vol.6,Oliva,pl.25, fig.71.
Marrat,1871,Thes.Conch.,vol.4,Oliva,p.31,no.161,pl.22(349),figs. 381,382.
Oliva rubra Marrat,1871, Thes.Conch.,vol.4,Oliva, p.40,no.217, pl.25(351),figs.459,460.
Weinkauff,1878p.34,fig.12 (locality Antillen)
Axel A. Olsson,1956, Proc. ANSP,vol.107,p.185,pl.15,figs.6,6a,6b
R. Tucker Abbott,1958,Monog.Acad.Nat.Sci.Phil,no.11,p.81.

Inasmuch as this species has been something of a problem to us we will give it some discussion. Olsson has placed it in the subgenus Dactylidia. Abbott (1958) suggests that it is closely related to O. floralia and may be a form or subspecies of it. The last comment is indicative of the puzzle since floralia is placed in subgenus Olivella by Olsson. Tryon placed the species in the synonymy of nivea. The name O. rubra Marrat seems to have been extensively used although placed in synonymy by most authors.

Reeve's original description follows," The Bleached Olive-Shell acuminately oblong,rather narrow,spire exserted,sharp at the apex, columella slightly curved,plaits oblique,distant,almost faded; ivory-white,marked beneath the suture with arrow-headed brown dots, base sparingly stained with brown...Hab.--?. This species appears to be distinct in respect to form, and may prove to be uniformy as colourless as the specimen here figured." End Reeve quote.

Axel A. Olsson(1956) discusses the species as follows," Like O. nivea in general shape,whitish shell but much smaller, less(con.

than half as long,the apical tip stubby,conic and not produced or attenuated as in the larger species.Color white or cream,usually with a band of broken brown dots or streaks below the suture and another similar band borders the fasciole below. Fasciole white, the middle line depressed. Some specimens are darker, the mid-zone of the body whorl being brownish,formed by small,irregularly zigzag lines. A thin,chitinous operculum is present. Length 11 mm.,diam. 5.5 mm. (Bradenton Beach,Florida). The radula taken from a specimen contributed by Miss Adele Koto and collected at Bradenton Beach has 31 rows of teeth, the length of the radular ribbon about 1.3 mm., width 5.5 mm., width of rachidian tooth about 2 mm. This species is plentiful on Grand Cayman near Cuba and probably elsewhere in the West Indies,extending to the Keys and along the west coast of Florida. Most specimens are relatively small, the average about 8 mm. but occasionally attain a length of about 14 mm. Some records of *nivea* in the West Indian-Caribbean area may represent this species.The pure white form of this species,common throughout the West Indian region, may be the shell described by Lamarck as *oryza*. " End Olsson quote.

R. Tucker Abbott,1958,ANSP Mon.no.11,p.81 describes the species, " Shell 6 to 9 mm. in length,moderately slender, with a well-developed parietal callus which extends halfway on the penultimate whorl.Columella slightly concave, with 7 to 9 strong,narrow,slanting teeth. Fasciole at base of shell pure white,bounded above by a fine,raised thread.Suture deep and cutting into the previous whorls. Nuclear whorls small,white,tan or rose. Color of shell variable; light phase from clear sandy areas;whitish with a rose,purple or white apex, and body whorl with sparse, irregular axial flames or zigzag streaks of light orange-brown;dark phase from shallow,muddy, protected areas: with dark chestnut-brown streaks and axial flames. Fasciole always white. Remarks- Mr. Axel Olsson kindly identified this species for us. However,Reeve's figure shows colored markings of the fasciole which are absent in all our many specimens. This species is closely related to *floralia* Duclos and may be a form or subspecies of it.This is probably the most abundant and widespread gastropod at Grand Cayman where it was obtained in large numbers at 80 stations in nearly every place where there was a sand or muddy sand bottom at depths from 4 to 48 feet." End Abbott quote.

Specimens examined- The Burch collection contains a set from St. Vincent,West Indies; numerous sets from the West Indies often labelled *O. rubra* (Marrat).

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Olivella pusilla (Marrat,1871) Thes.Conch.,vol.4,*Oliva*, p.29, no.150,pl.21 (348),figs.356-358
Perry,1940,Bulls.Amer.Paleont.,vol.26,no.95,p.159,pl.36,fig.248--
Perry and Schwengel,1955,Marine shells of Western coast of Florida, p.176,pl.36,fig.248.
Axel A. Olsson,1956,Proc. ANSP,vol.107,p.186,pl.8,fig.5;pl.14,figs. 7,7a,7b

Perry and Schwengel,1955, describe as follows," Alt. to 12 mm. Shell almost a miniature *Oliva* ,spire more produced,aperture smaller shorter,mutable in color and pattern.Individuals vary through ashy shades and brown,unicolored,banded with white or finely reticulate with chestnut brown. Less common color variations are dark brown and pure golden-yellow.Corneous operculum,thin,semiovate,apical nucleus. Common in shallow water,usually in sand. West coast of Florida." end quote.

(con.)

Olsson,1956 following a detailed description comments," This is the commonest Olivella in Florida,particularly along the west coast."

Tryon placed O. pusilla in the synonymy of O. mutica (Say), and the two must be very close indeed. Numerous sets in the Burch collection labelled O. mutica by the collectors who sent them to us have been assigned to this form. They may be easily confused, if they may not prove to be variations of one entity.

Specimens examined- Grassy Key,Fla.,Bonefish Key,Fla.,Punta Gorda Beach, all from B.R. Bales; Cortez,Fla. ex. Adele Koto;Bradenton Beach,Manatee Co.,Fla., and Marathon, Key Vaca, from B.R. Bales; Barnes Sound near Miami, dredged John J. Schmidt Jr.,; Clearwater, Pinelles Co.,Fla. ex. P.H. Reed.**********

Olivella minuta (Link,1807) Beschr. der Nat-Samml.der Univ.zu Rostock,p.98 (For illustration refer to Mart.Conch.2,t.50,f.545
--Tomlin and Winckworth,1931,reprint of Link,p.98
Voluta nitidula Dillwyn,1817. A descriptive catalogue of Recent Shells arranged according to the Linnean Method,vol.1,p.521,no.45.
Oliva zig-zag Duclos,1835, Mon.Oliva, pl.2,figs.1-4.
Oliva mutica Say, Reeve,1850,Conch.Icon.,vol.6,Oliva, pl.28,fig. 86a (not of Say). --Marrat,1871,Thes.Conch.,vol.4,p.29,no.151, pl.21(348),figs.359-361;pl.25(351),figs.465-467(not of Say).
Oliva cyanea Reeve,1850 ,Conch.Icon,vol.6,(erratum on p.ii of index to Oliva), pl.24,fig.70.
Tryon,Man.Conch.,1883,vol.5,p.64,pl.14,figs.48-55 (as var.nitidula Dillwyn of O.mutica Say.
R. Tucker Abbott,Nautilus 64,1951,p.116 (note under Olivella mutica (Say) (see Minutes 189,p.11)
Axel A. Olsson, Proc. ANSP,vol.107,p.190,pl.9,figs.1,2,2a,2b;pl.12, figs.2,2a.

Olsson placed the species in subgenus Niteoliva Olsson,1956 , and his diagnosis of the species follows," I am indebted to Dr. Tucker Abbott for indicating to me that Link's Porphyria minuta and Dillwyn's Voluta nitidula are the same species,since both refer to the same figure of Martini for illustration. As type illustration of this species, I would designate figure 545 in Martini,1773, Neues Systematiches Conchylien Cabinet, vol.2,p.182,taf.50. This figure is referred to by both Link and Dillwyn,and illustrates quite well the common species, usually known as nitidula throughout the Caribbean area.. The typical form of minuta has a short,globose shell with a conic spire,slightly shorter than the length of the aperture, the body-whorl being evenly convex, its greatest diameter placed opposite end of aperture. The sutures are open and grooved. Parietal callus strong,extending upward towards the suture. The pillar structure is formed by a tongue-shaped ridge,widest below, evenly and finely crenulated along its full length and terminating in a prominent tooth above. The outer lip is thin,smooth or lirate within, the lirae beginning a short way in from the edge. The spire whorls are plain,their original coloring concealed or covered over by enamel;on the body-whorl, the color pattern is quite variable but usually formed of more or less zigzagged lines;these may be best developed on young shells. Fasciole wide,colored by a median brown band along the lower edge of an inciseed line. The nucleus is small,glassy and somewhat elevated or projecting...Olivella minuta has often been confused with O. mutica, sometimes united with or considered a varietal form, but the radular and shell characters show it to be quite distinct. Most records of mutica from the West Indies appear to be based on this species." End quote.

The Burch collection contains but two sets assigned to Olivella minuta- one from Jamaica and another from St. Vincent,West Indies.

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Olivella minuta marmosa Olsson and McGinty,1958 Bull.Am.Paleo., vol.39,no.177,1958, p.38,pl.1 ," Rec.Marine Moll.Caribbean of Panama" Type locality, Bocas Id.,Panama. Holotype, length, 5.4 mm;diameter 2.5 mm. " A common shell on Bocas Island and differing constantly from the typical form by its much smaller size and lighter color."

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Olivella verreauxii (,Ducros,1857) Revue Critique du Genre Oliva de Bruguieres,p.97,pl.3,figs.86,a,b
Tryon,Man.Conch.,1883,vol.5,p.64,pl.14,figs.41,42.
Oliva mutica Reeve,1850 Conch.Icon.,vol.6,Oliva, pl.28,figs.86,b,c pl.29,fig.93,a,b (not of Say,1822)
Weinkauff,1878,p.30,figs.1-4 (Guadeloupe)
Axel A. Olsson,Proc. ANSP,1956,vol.107,p.191,pl.9,fig.3

Tryon discusses the species as follows," Purplish white or yellowish white,with distant,longitudinal zigzag purple stripes.Length,5-7 mill. West Indies. The spire is more produced than in the usual form of O. nitidula ,the stripes are larger and more distant,there are no traces of bands, and it has not the fasciculated markings at the suture and base so common in nitidula; still,it is possibly a variety of that protean species. It is the O. mutica of Reeve, in part,and probably O. mica Duclos(fig.42);the latter name has priority, but the identification is not certain." End Tryon quote.

Axel A. Olsson,1956,p.191, quotes Ducros description in the French, followed by comments," Olivella verrauxii is closely related to minuta and at times may be difficult to separate but it is generally a more slender form and with different pattern of coloration.Commonly the body-whorl is flesh-colored with delicate lines of zigzag which are more widely spaced than usual in minuta. Other shells are yellow or brown." End Olsson quote.

Olsson placed the species in subgenus Niteoliva.

Specimens studied- The Burch collection contains few sets assigned to this species. One is labelled as from Marie Galante, another set that has been labelled Olivella mica Duclos from the West Indies seems to be of this species. We have the usual number of puzzles, such as a set from Brazil, white shells with zigzags of pink. It seems as if they belong either here or under minuta , but they are not typical and are probably either of another species or a distinct variety.

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Olivella peterseni Olsson,1956. Proc. ANSP,vol.107,p.191,pl.11, figs.7,7a,7b.
Length 12.9 mm,diameter 5.7 mm. (Holotype,ANSP,194591).
We are not familiar with this shell, but from the figures and description it seems to be well marked. Following the detailed description, the author comments," This is a well marked species distinguished by its stout form,strong pillar structure and pattern of zigzag brown lines on a white or yellow base. Some shells resemble the young of anazora but are stouter...Range-Zorritos, Peru." End quote.

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Olivella moorei Abbott,1951 Nautilus,vol.64,no.4,pp.112,113,pl.7, figs.1a-b.
Abbott,American Seashells,1955,p.246
Axel A. Olsson,1956, Proc. ANSP,vol.108,p.197,pl.15,figs.11,11a.

Abbott in American Seashells describes the species briefly as follows," Off Key Largo to Key West,Florida.1/4 inch in length,apex bulbous.Characterized by its translucent shell with numerous,long, wavy,axial flammules of reddish brown on the sides of the whorls. Dredged from 115 to 144 fathoms. ..". Following the original description in Nautilus,vol.64, the author remarks," O. moorei is closest to O. strigata Reeve,1850, from the " West Indies" the latter, however,being a larger,much more squat species with a light brown aperture. O. moorei is sometimes dredged with O.bayeri in depths below 110 fathoms, and can be distinguished from it readily by the longitudinal brown streaks, less elongate spire, thicker fold at the base of the columella, and the less obvious suture. .. The bathymetric ranges of the off-shore Olivella appear to be rather distinct for each species. From the more than 100 dredging stations represented in the U.S. National Museum collection, O. nivea occurs from shore to 25 fathoms,; O.bayeri occurs from 25 to 122 fathoms, and O. moorei from 115 to 144 and probably deeper." End Abbott quote.

Olsson,1956, redescribes the species, places it in subgenus Callianax, and follows with the comment," Related to Olivella thompsoni but smaller,judging by the specimens seen, also narrower and with a more conic,straight sided spire.." End quote.

We have seen no specimens.

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Olivella thompsoni Olsson,1956 Proc. ANSP, vol.108,p.197,pl.14, figs.8,8a
Length 11 mm.,diameter 5 mm. Type in McGinty collection. Following the detailed description the author comments, " This is an interesting species characterized by its stout build and form. ..Edge of Pourtales Plateau southward of Sombrero Light off Marathon Florida Keys in 100 fathoms." The author placed the species in subgenus Callianax.
We have seen no specimens. It must be very close to O. moorei.

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Olivella bullula (Reeve,1850) Conch.Icon.,vol.6,Oliva, pl.30, figs.96,a,b.
Weinkauff,1878,Gattung Oliva, Syst.Conchy. Cabinet,p.146,taf.37, figs.15,16---Marrat,Thes.Conch., figs.433,434
Dall,1889,Blake Report,Bull.Mus.Comp.Zool.,vol.18,p.135- Dall, 1889,Bull.37,U.S. Nat.Mus.,p.106
Olivella bayeri Abbott,1951 ,Nautilus,vol.64,no.4,pp.111,112,pl.7, figs. 2a-b (fide Olsson)
Alberto R. Carcelles, 1950,Catalogo de Los Molluscos Marinos De La Patagonia,Anales Del Museo Nahuel Huapi Perito Dr. Francisco P. Moreno, Tomo.2,pp.41-100. (Lists and refers to Dall)
Axel A. Olsson, Proc. ANSP, vol.108,p.200,pl.16,figs.6,6a

Reeve described the species as follows," The Little Bubble Olive-Shell acuminately oblong,thin,rather inflated,spire much exserted, columella arched,rather callous at the base;transparent-white, with a narrow opake zone beneath the sutures. Hab. West Indies. ..Like the smaller O. myriadina, this shell is of a thin,pellucid substance without color or marking." End Reeve quote.

(con.)

Olsson,1956, placed the species in subgenus Olivina , and discussed as follows," Although Olivella bullula is a common species,living off-shore, it is obtained only by dredging and its characters have been much misunderstood by collectors. It appears to be quite plentiful along the east coast of Florida where it has been obtained in numbers by the McGintys in waters ranging in depth from 50 to 130 fathoms. Dall gives the range of the species from Hatteras to Brazil in depths of 72 to 464 fathoms. ..Specimens from Florida collected by the McGintys are closely with Reeve's figure in shape and general size. Adult specimens attain a length slightly over 10 mm.,the scale of Reeve's figure would indicate a length of about 11.7 mm. They vary from broadly to narrowly subovate with a relatively high spire of about 6 whorls. Sutures distinct,narrowly channeled. The parietal callus is thin, extending to the end of the aperture only, the surface along the penultimate free. The pillar straight,not noticeably concave, the pillar structure itself formed by a single fold. In good shells, the surface is highly polished,usually a translucent white,sometimes faintly yellow or pellucid. A narrow band along the suture is often stained a little darker and a faint suffusion of brown may color the body-whorl as well. Fasciolar band is simple,white,often slightly depressed along the middle. A thin,brown operculum is present. The radular ribbon is fairly small,with about 23 rows of teeth, the rachidian tooth boat-shaped, with a convex base and about 20 cusps;these are of uniform height and size in the middle zone,fade out rapidly at the ends.Laterals are curved,uncinate blades. ..A detailed description of this species (under the name of bayeri) has been published by Tucker Abbott, based in part on large collections dredged by the " Eolis" off the southeast coast of Florida (from Miami to Key West). The species resembles O. blanesi Ford but is a larger,thinner shell and its pillar is nearly straight. Range- Florida southward into the West Indies and Caribbean. Common off Palm Beach and Lantana in 50 to 130 fathoms." End Olsson quote.

A note from Thes.Conch,no.2ol is of interest," bullula Reeve,f. 433,434. This is the West Indian analogue of the South American O. tehuelchana d'Orb. Mr. Reeve had not seen the finely colored specimens of his shell which he describes as pure white."

Tryon,Man.Conch.,p.68,pl.16,fig.1, reproduced Reeve's figure and placed O. bullula in the synonymy of O. tehuelchana d'Orb.

Olsson and McGinty,1958,Bull.Am.Paleo.,vol.39,no.177,report the species from the island of Bocas del Toro,Caribbean coast of Panama.

We have studied but one set which we have assigned to this species, and they are from Bermuda.

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Olivella tehuelchana (d'Orbigny,1841) Voy. en Am.Mer.-Olivina tehuelchana d'Orbigny (38,p.418,pl.59,figs.7-12)
Marrat,1871,Thes.Conch.,202,fig.457 -Weinkauff,1878,37,13,14
Tryon,Man.Conch.,vol.5,1883,p.68,pl.15,figs.95-97;pl.16,fig.1; pl.1,fig.6.
Alberto Carcelles, 1944,Catalogo de los Moluscos Marinos De Puerto Quequen (Republica Argentina) , Revists del Museo De La Plata, p.258

Tryon briefly describes the species as follows," Pellucid white, with with an opaque zone at the suture.Length 12-15 mill. San Blas, Patagonia. " End Tryon quote. Tryon placed O. pura Reeve in the synonymy. ?

(con.)

Carcelles,1944, lists the range from the coast of Uruguay to Golfo Nuevo, and states that it is abundant in shallow water close to the coast. Dimensions: 11 x 3 mm,n° 18.674; el tipo mide 8 x 3 mm.

Marrat, Thes.Conch. 202, comments re O. tehuelchana " A pure white fusiform little shell, with one basal columellar plait, and intermediate in form between O. bullula and O. pura."

Specimens noted- The Burch collection contains a set from Rio Grande do Sul,S. Jose do Norte, ex. E.C. Rios. These seem to match all characters. There is a set in the Stanford University collection, No. 2351 labelled from Patagonia.

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Olivella perplexa Olsson,1956 Proc. ANSP, vol.108,p.209,pl.16,fig.7
The author designated this species as the type of a new subgenus, Minioliva. We have seen no specimens. Following the detailed description, Olsson comments, " Length 3.8 mm.,diameter 1.8 mm (Holotype, ANSP,199584)..This small species is common in beach drift along the Florida east and west coasts and in all probability extends southward into the West Indies and Caribbean. Living specimens are seldom collected, the only ones which I have seen being specimens obtained by Miss Adele Koto who found them crawling over the surface of sand cones formed around upwellings of submarine springs.
Range- East and West coasts of Florida, probably also southward.
Florida: Lake Worth (McGinty). Miami (common).Keys.Charlotte H arbor. Sanibel Is., St. Petersburg." End Olsson quote.

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Olivella myrmecoön Dall,1912 Smith.Misc.Coll.,vol.59,no.2,p.4.
Dall's original description follows," Shell very small,stout,short, of about five whorls; the spire about one-third the whole length, the suture narrowly and deeply channelled. Surface smooth,whitish in the fossils;body with a thin coat of callus,pillar excavated, with a single prominent plait on the outer edge;anterior fasciole short, smooth,the posterior edge abrupt. Length 4.5; max.diameter 2.0 mm." End Dall quote.

Axel A. Olsson, ANSP, Proc.,vol.108,p.211,pl.12,figs.10,10a, comments as follows," This small species was described as a Pleistocene fossil from material dredged or excavated during from darinage canals in the vicinity of Colon,Panama and in the adjacent sections of the Canal Zone. The species is still living in the same general region. The shell is small,white,rather widely subovate, with a small, elevated spire of 4 to 5 whorls. The callus wash on the parietal wall is thin and does not extend above the end of the aperture. Range- Pleistocene and Recent silts at Colon,Panama. Also in beach drift at Pina,Panama." End Olsson quote.

Olsson and McGinty,1958,Bull.Am.Paleo,no.177,report the species from Colon, Caribbean of Panama.

Olsson placed this species in subgenus Minioliva.

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Olivella jaspidea (Gmelin,1791) Syst.Nat.,ed.13,p.3442-Voluta jaspidea Gmelin.
Oliva conoidalis Lamarck,1811, Ann.Mus.Hist.Nat.,Paris,t.16.p.325--Duclos,1835,Mon.Oliva,pl.2,figs.17,18.
Oliva jaspidea (Gmelin), Deshayes (d. Lamarck),1844,Hist.Nat. an. sand vert.,t.10,p.631--Reeve,Conch.Icon.,vol.6,Oliva, pl.22,figs. 58,a,b,c-Ducros,1857,Revue critique de Genre Oliva,p.88.
Oliva exigua Martini,Marrat,1871,Thes.Conch.,vol.4,Oliva, p.33,pl. 23 (350), figs.399,400. (con.)

Tryon,Man.Conch.,vol.5,1883,p.68,pl.15,figs.91-94.
Maxwell Smith,1941,East Coast Shells,p.132,pl.51,fig.19
R. Tucker Abbott, 1951,Nautilus,vol.64,p.115,pl.7,figs.3a-b--
American Seashells,1954,p.246,pl.11-i
Axel A. Olsson,1956, Proc. ANSP,vol.108,p.212,pl.15,figs.1,1a

Olsson has described a new genus, Jaspidella, with this species as ~~type~~ type. The author remarks," This group of species has commonly been referred to Olivella largely because of the small size, but its position in the Olivinae is shown by its radula,as well as the lack of a callous wash along the parietal wall." End Olsson quote.

We do not question the findings of the author, but hope that such groups may be considered on a subgeneric basis. The question of the value of many generic names to indicate such divergent forms remains a contraversial.matter. In some families we now find it much easier to assign a specimen to the proper species than it is to place it in a genus. This is further complicated when other species appear that bridge the gap between two arbitrary taxons.

R. Tucker Abbott,1951,Nautilus 64,p.115 discussed the species as follows," Olivella jaspidea (Gmelin)- Voluta jaspidea Gmelin,1792, Systema Nat. 13th Ed.,p.3442,no.21 (refers to Lister Conch.,t.726, f.13a and to Martini Conch.Cab.,vol.2,t.50,f.556) (" in mari hispanico). Both of the figures referred to by Gmelin are admittedly poor,but I think the character of the color-marked anal fasciole and the shell's general shape are sufficient to identify the name O. jaspidea with our common West Indian species. The nuclear whorl in Martini's figure is depicted as large,although no great weight can be put on the accuracy of his artist. This species is commonly confused with O. nivea. ..Description- Adults 10 to 18 mm. in length whorls about 5,apex blunt;nuclear whorl large and rather bulbous, white, Sutural channel moderately deep,narrow;without an etched spiral indentation on the side of the preceding whorl.Surface of shell moderately glossy,with fine axial growth lines.Plaits on upper two-thirds of columella absent or weak. Base of columella with about 4 rather strong,variably-spaced plaits. Color of shell variable, usually grayish white with small,dull, maculations of purplish brown. Fasciole colored with irregular brown spots and bars. Range-Southeast Florida,south through the Antilles to Barbados. No Bahama or Gulf of Mexico records. A darker, more squat subspecies occurs from Curacao and Aruba to Barbados. It is probably O. conoidalis (Lamarck) 1811." End Abbott quote.

Specimens noted- The Burch collection contains numerous sets from Florida, Little Duck Key, ex. B.R. Bales; Porto Rico, Key West, Key Largo. It is interesting to note that we have two sets that are presumably labelled by the late Hugh Fulton from the West Indies labelled O. exigua (Marrat) which is placed in the synonymy here. Nevertheless they are darker than the Florida specimens, and varietal names have been given to a host on differences much more slight. Another set labelled O. conoidalis (Lamarck) seems to be the same.

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Olivella blanesi (Ford,1898 Nautilus,vol.12,p.66.
Vanatta,1915,Nautilus ,vol.29,p.72
Perry and Schwengel,1955 ,Marine shells of the western coast of Florida,p.176,pl.36,fig.250.
Olivella blanesi alba Ford,Nautilus,vol.12,p.67 (not alba Marrat)
Olivella blanesi albata Vanatta,1915, Nautilus,vol.29,p.72
Olsson,1956, Proc. ANSP,p.213,pl.8,fig.7.

(con.)

The original description by Ford, Nautilus 12,1898,p.66," Olivella blanesi n. sp. Shell ovate,white,somewhat translucent,ornamented with three spiral series of irregularly formed crimson spots, one (of very small spots)at the suture,the others central and basal ; the rest of the surface showing a faint reticulation of the same color in some specimens. Whorls 5, spire produced,rather acute;suture chanelled.Aperture half the length of the shell,acuminate above, widest below the middle;basal notch wide,columella very short,vertical cylindrical and smooth,making a decided angle with the parietal wall, forming a deep sinus;basal fasciole smooth. Length 8.9, diam.3.8, length of aperture 4.75--Length,7.9,diam.3.2,length of aperture 4 mm. Locality.- Cardenas, Cuba. .. The species has apparently heretofore been mistaken for O. rosalina ,although the one is quite distinct from the other,especially so in general form,number of spiral whorls, and the non-appearance in O. blanesi of the rose colored base of the columella,which is seldom if ever absent in O. rosalina. A fine suite of these shells has been in my collection for several years, unnamed. Though convinced that they were an undescribed species they remained neglected until I recently found in the fine collection of Mr. Francisco E.Blanes,late of Cuba, a large number of the same form mistakenly labelled O. rosalina Duclos. All, or nearly all of this entire lot had been collected by himself near Cardenas,Cuba. A brief explanation and comparison with genuine O. rosalina was sufficient to satisfy him of their distinct character, and the result is the new name, Olivella blanesi. Specimens entirely white,secured at the same locality might well be termed var. alba. Some suspicion that these colorless shells might be identical with O. pura or O. bullula as figured by Reeve being felt,specimens were submitted by a friend to Mr. E.R. Sykes of London for comparison with Reeve's types. To his kind assistance the following report is due: " I have compared your Olivella (with Mr. Smith's ever ready helping hand). It does not seem to be either pura or bullula. Pura may not be the actual type,as it is recorded by Reeve as in ' Mus.Metcal fe'. It is much more drawn out than your shell. The one specimen is in pretty good condition and seems never to have had much color marking,certainly not like yours. O.bullula here is snow white,but is thin and worn, so may have had some color. It is slightly more elongate and does not show the sinus that your species has in the columella. Very probably yours is new." End Ford quote.

Olsson,1956,describes and figures the species, assigns it to genus Jaspidella , followed by remarks," The reference of blanesi to Jaspidella is tentative,pending observation of the radula. It is a relatively small species,its size ranging from about 7 to 10 mm. The body whorl is large,inflated, with evenly convex sides. The shell is moderately solid,its thickness often shown by the fractured edge of the outer lip. Often confused or compared with Olivella bullula, it will be distinguished by its heavier shell and deeply concave and twisted pillar. Jaspidella blanesi (as Olivella) has often been reported from Florida, but most of these records from the east coast refer to Olivella bullula. The McGintys have collected authentic specimens from Grassy Key. Perry gives a good figure of blanesi ,evidently based on a west Florida shell, but no specimens from that coast have been seen by us. The figure of Oliva miriadina as given by Duclos,strongly suggests a young blanesi. Range.- Florida southward to the West Indies to northern Panama. Florida: Grassy Key (McGinty), West Florida (Perry).B ahamas: New Providence (McGinty). Cuba: Cardenas etc. Panama: Bocas del Toro." End Olsson quote.

Olivella miris Olsson,1956 Proc. ANSP,vol.108,p.214,pl.15,figs.2,2a
The author placed this species in genus Jaspidella.
Length 8.9 mm, diameter 4.3 mm. (Holotype,ANSP,194588)
Following the detailed description the author comments, " A small, solid shell marked with tent-shaped brown lines recalling those of Oliva porphyria but much lighter, and seen only on close inspection. In shape,this species resembles Olivella liveoakensis Mansfield, 1937, from the Oligocene,Suwanne limestone of Florida. The generic reference is tentative, pending the receipt of specimens with the soft parts. Specimens received from Mr. Charles P. Locklin, Gulf of Mexico, but exact locality not known. " End Olsson quote.
We have seen no specimens.

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Olivella puelchana (d'Orbigny,1841) Voy. Amer. 38,p.418,pl.59, figs. 13-19- Olivina puelchana d'Orbigny.
Duclos,1835, 5, f.7-14- Marrat,1871, 454,464,465-Weinkauff,1878 36, f. 1-3
Alberto Carcelles & Juan Jose Parodiz, Molluscos,del Contenido Estomacal de Cieh.Nat., 1938 " very com on on Bahia San Blas,Prov. of Buenos Aires & vicinity".
Alberto Carcelles,1944,Catalogo De Los Moluscos Marinos de Puerto Quequen, Rev. del Museo de La Plata,tomo III,p.259.
Tryon,Man.Conch.,vol.5,1883,p.70,pl.16mfigs.24,25;pl.1,fig.1.

The identity of this species seems to have been very commonly confused. Tryon describes and figures a species that seems to be the species discussed above as Olivella minuta (Link). The figures are close or identical with Reeve's fig.70 for O.cyanea. This was described as from Cartagena,Colombia. There is a set in the San Diego N atural History Museum labelled puelchana from Cartagena. This is in accord with Tryon's figures.

However, we have specimens from South America, Argentina etc. that are certainly not the same. A typical set of the species before us is labelled Olivella puelchana (d'Orbigny) Mar del Plata, Argentina ex. Dr. Juan Jose Parodiz. This set is almost uniform in size, ten specimens, measuring approximately 11 to 12 mm in length, and 5 mm. in diam. Color generally dark amber, a white band immediately above the suture,a lighter thin band below the suture, a white band at the fasciole,the parietal callus is strong to the suture,the pillar structure is smooth and not crenulated, one tongue like fold at the base. Aperture violet rose.

We have assigned the specimens from Argentina etc. to O. puelchana and the specimens from Colombia to O. minuta.

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Genus Belloliva Peile,1922 Proc. Mal.Soc.Lon.,vol.15,p.18
See original description and discussion in Minutes 184,p.19.
Axel A. Olsson,Proc. ANSP,vol.108,p.215 refers the following species to Belloliva.

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Olivella tubulata Dall,1889 Bull.Mus.Comp. Zool.,vol.18,p.136
Dall's description follows," This form varies from moderately stout,or a little more slender than Reeve's figure (bullula var. ?) to extremely attenuated. It is in the last case about the shape of O. nympha Adams and Angas,but more cy;indrical,pure white, the walls and spire sometimes translucent; the broader form recalls O. floralia (Duclos) Tryon, from the white varieties of which it is at once distinguishable by the large size of its nuclear whorls. The soft parts dried up in one specimen show no sign of an operculum. The slender form is 11.3 mm. long and 3.5 mm. in greatest diameter, with 5 whorls. The length of the aperture is almost exactly half(con)

that of the shell. The stouter form is 13.3 mm. long, 5.0 mm. in diameter,with 5 whorls and the aperture 8 mm. in length. The suture in both is deeply channelled, except between the two nuclear whorls, which are rounded and flattened on the summit. A specimen was obtained at Station 20 in 260 fms. off Cuba,and another by the Fish Commission in 225 fms. off the northeastern end of the same island." End Dall quote.

Axel A. Olsson, 1956, Proc. ANSP, p.215 discusses the species as follows," There are three specimens in the collection of the U.S. N National Museum bearing the nos. 62722,62723 and 107458. The first or more slender form is indicated as being the holotype. It is a white,polished shell with 5 whorls and a large blunt nucleus. The sutures are deeply channelled,the bordering edge of the forward whorl being sharp and overhanging.The parietal wall is without callus wash,the pillar structure reduced to three lirations. The fasciole is double, and reaches a little above the middle line of the aperture. This specimen bears the no.62723. The stouter form (no.62722) has a broken apex. It is closely similar to the slender form,differing principally by its fasciole which is not so clearly divided into two zones. Through the cooperation of Dr. Rehder, we were permitted to extract the radula from the dried-up remains of the soft parts, the radula proving to be similar to that of *Oliva*. Details of ribbon are as follows; the ribbon is quite long with about 107 rows of teeth,of which the hinder 34 are thin and nascent; the rachidian tooth is broadly rectangular, with a slightly concave basal margin and higher ends, the free or cutting margin with three, high,fang-like cusps in the middle,of which the central cusp is the largest;the lateral teeth are broadly subtriangular or cleaver-shaped,with a recurved awl-shaped point.Length of ribbon 1.4 mm. width .20 mm.,width of rachidian tooth .07 mm. A third specimen (107458) from off Cape Canaveral,Florida,540 fms. This is long, moderately slender, the spire about half the length of the shell, with a large,rounded,blunt nucleus. No parietal callus. The specimen is figured on Plate 12,figure.5" End Olsson quote.

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Olivella strigata (Reeve,1850) Conch.Icon, *Oliva*, pl.25,fig.72,a,n

Tryon,Man.Conch.,1883, placed this species in the synonymy of *nitidula* Dillwyn (= *O. minuta* (Link,1807). We have seen no specimens assigned to this species, but Reeve's figures indicate a different form. This species is figured by Marrat, figs.416,417 and Weinkauff,1878, p.36,figs.9,10. Weinkauff accepts the species. For the record we quote Reeve's description," The Streaked Olive. Shell ovate,rather swollen,Eburna-shaped,spire exserted,columella callous, one plaited at the base; dull fawn colour,painted longitudinally with light brown streaks,columella white,interior of aperture light brown. Hab. West Indies. Distringuished by its Eburna-like form, and characteristic striped painting." End Reeve quote.

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Olivella pura (Reeve,1850) Conch.Icon.,pl.30,fig.97.

Tryon,1883,Man.Conch.,p.68,pl.15,fig.97, places this species in the synonymy of *O. tehuelchana*. Marrat,199,fig.431, comments,"More narrowly lanceolate than *O. tehuelchana.* There are several sets before us , one from St. Martin that seem to agree with all figures. Reeve compared it with *O. bullula* of which it may indeed be a form, and describes it," Shell lanceolately oblong,spire very much exserted,columella short,arched,obscurely two plaited at the base; transparent white,slightly opake at the sutures.. Like the preceeding (*O. bullula*) ..but its proportions are different ,being narrower,more acuminated,more solid." End Reeve quote.

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Axel A. Olsson and others have recognized certain groups of species heretofore referred to the genus Olivella as being in the subfamily Olivinae, and on the basis of radular studies closer to Oliva.

In this paper we have arbitrarily placed the several generic names involved under Olivella as subgenera. This has been done for the convenience of those who may be disposed to examine the existing literature.However,we have no thought of challenging the findings of the authors, and it may be more logical to accept these generic names as subgenera of the genus Oliva rather than Olivella. It is hoped that we may avoid the use of a multitude of genera. We have the frightening example of several other families in which it is comparatively easy to place a specimen in the proper species, but is a matter of extended research, if indeed possible, to determine an appropriate genus.

We wish to conform to the opinions of the majority of the professional workers on this matter.

Some of the groups involved are:
Jaspidella Olsson,1956 Type by original designation,Voluta jaspidea Gmelin.
Strephonella Dall,1909 Type Olivella undatella (Lamarck,1810) (fide Olsson in Keen,1958)
Belloliva Peile,1922 Type by original designation,Olivella brazieri Angas.

But let us start here with a typical problem. We have before us some beautiful specimens of the species generally known as Olivella nympha Adams and Angas,Port Stevens, N.S.W., Australia. This is the type species by original designation of genus Cuspioliva Iredale,1924. Now Peile states that nympha has," a radula with multicuspid rachidian which appears to be normal in Olivella." Others agree. The radula is that of Olivella. These specimens are a nice species of Olivella ,easily separable on shell characters, but we see nothing to make them generically distinct from many other species of Olivella.

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Axel A. Olsson,1956,Proc. ANSP,vol.108,has given us a scholarly contribution. Olsson recognizes the following subgenera of Olivella.
Olivella s.s.
Dactylidia H. & A. Adams,1853 Type by subsequent designation, Cossmann,1899,Olivella mutica (Say)
Dactylidella Woodring,1928 Type by orig.desig. Oliva anazora Duclos
Niteoliva Olsson,1956 Type by orig.desig. Olivella minuta (Link)
Callianax H. & A. Adams,1853 Type by subsequent designation, Cossmann,1899,Oliva biplicata Sowerby.
Olivina d'Orbigny,1839 Type, Olivella tehuelchana d'Orbigny
Pachyoliva Olsson,1956 Type by orig,desig.Olivella columellaris (Sowerby)
Lamprodoma Swainson,1840 Type by monotypy,Oliva volutella Lamarck
Macgintiella Olsson,1956 Type by orig. desig.Olivella watermani McGinty
Minioliva Olsson,1956 Type, by orig.desig. Olivella perplexa Olsson.
Zanoetella Olsson,1956 Type by original designation,Olivella zanoeta (Duclos).

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CONSTITUTION

Conchological Club of Southern California

Article I

Section 1. This organization shall be known as the Conchological Club of Southern California

Section 2. The purpose of this organization shall be to bring together into a brotherhood of research,study,and hobby,any person or persons interested in the knowledge of malacology and conchology.

Article II

Section 1. The duly elected officers of this club shall be: a President,Vice-President,Secretary, and Treasurer.

Section 2. Officer candidates shall be nominated by a Nominations Committee of three,appointed by the President from the list of Past Presidents of the club. The Committee shall present its slate of nominations at the November meeting. No candidate shall be nominated for President or Vice President who has not been an active member in good standing for two or more years.

Section 3. The term of office shall be for one calendar year.

Section 4. The officers shall perform the usual duties of such office.

A. The President shall preside at all meetings and be responsible for the appointment of all committees. The committees for which appointments shall be made are:

1. Program
2. Membership
3. Hospitality
4. Nomenclature and New Publications
5. Field Trip
6. Nominating

B. The Vice-President shall act for the President if the latter is unable to serve,and shall assist the President on request. The Vice-President shall also be Chairman of the Program Committee.

C. The Secretary shall take minutes of all monthly meetings,and see that an approved copy of each is entered in the permanent record of the club. He shall notify all members in good standing of forth-coming monthly meetings. He shall send an annual resume of club activities to the Secretary of the American Malacological Union.

D. The Treasurer shall be responsible for handling and recording all funds of the club,and shall submit an Annual Report at the last business meeting of the year.

Article III

Membership in the club shall be limited to active,corresponding,and honorary members.

Section 1. Any person interested in mollusks who is able to attend the monthly meetings,and who has paid his club dues,shall be an active member in good standing. As an active member, he is entitled to vote on all matters pertaining to club business.

(con.)

Section 2. Any person interested in mollusks who is unable to attend the meetings, but who has paid his dues,shall be a corresponding member in good standing.Corresponding members shall not be permitted to vote on propositions that come before the club.

Section 3. An honorary member shall be a person who has made an outstanding contribution to the study of West American mollusks. To become an honorary member,his name must be proposed by the Chairman of the Membership Committee, and accepted by a majority vote of the active members present. Not more than one individual may be proposed for honorary membership in any one-year period.

Article IV

A proposal to amend or repeal any part of this Constitution must bear the signatures of at least ten active club members in good standing. The signed proposal must be submitted to the President and brought to the attention of the membership at least two months before any voting action is taken. Its adoption requires a two-thirds majority affirmative vote of the members present.

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Conchological Club of Southern California- May,5,1959

The meeting was called to order at 7:30 P.M. by the president,Dr. Donald Shasky. There were 62 members and guests.

The minutes of the April 7 meeting were read and approved after a short discussion regarding the fact the proposed revision of the constitution had not been printed with the rest of the minutes,as had been the desire of the group.

Dr. Homer King reported that the club now has 86 paid memberships.

Crawford Cate introduced the speaker of the evening, Mr. Conrad Limbaugh,after a short biographical sketch in which we were informed that he was a graduate of Whittier College and had taken post-graduate work at UCLA and Scripps Institution of Oceanography.At present, he is working for his PhD. at Scripps where he is in charge of their underwater diving program.He has accompanied a number of scientific expeditions to such distant places as the Bahamas,Virgin Islands,Gulf of California and Clipperton Island where his services as a skilled scientist-diver and underwater photographer have been in great demand.

Mr. Limbaugh pointed out that Clipperton Island is located about 1600 miles south and a bit east of Los Angeles, and some 650 miles offshore from Acapulco,Mexico. It is a coral atoll in which a 300 foot deep lagoon has become completely closed off from the sea.The island has a fairly high volcanic rock outcropping on one end. It is owned by France, but Mexico feels it should belong to her.

Limbaugh made his first trip to Clipperton in 1956 with a group from UCLA. The island has always had a bad reputation for sharks and after diving there,Limbaugh felt it deserved whatever reputation it had. Actually the abundance of sharks was one of the prime reasons for his second trip to the island in 1958.,wherein he tested and made underwater observations on the effectiveness of various shark repellents. These repellents did not work effectively on any of the three commoner sharks in the area(Galapagos shark, *Carcharhinus galapagorum*; white tip,*Carcharhinus longimanus*; and black-tip,*Carcharhinus limbatus*.

Clipperton Island has a mixture of Panamic and Indo-Pacific faunas. The enclosed lagoon contained a fresh or brackish-water plant and snailfauna,but the fishes were typical marine reef fishes from the outer coast.During the time of his stay(August and September),air temperatures ranged upward from around 80° F. and (con.)

it rained every night.The ocean remained around 85° F.and there was about a two foot range in the tide. There were 13 people on the 1958 expedition and each was a specialist in some field of natural history. Dr. Ned Allison,U.C.,Berkeley, was the mollusk specialist.

Working from the confines of a mobile wire cage,for protection from sharks,Limbaugh was able to dive to depths of 200 feet collecting mollusks,corals,fish and other fauna and photographing various items and features.Most of the living coral was on a steep slope that plunged into great depths from about 60 feet. At depths of 150 feet and greater a thick-shelled oyster was everywhere prevalent. Best mollusk collecting was in and around a shallow fore-reef of broken coral rubble. *Bursa*,*Cypraea*,*Conus* and a small octopus were abundant in this intertidal area. All-told some 100 species of mollusks were collected during this trip.

The small octopus seemed to be prey for every voracious animal around the island and had adjusted to this by an ability to autotomize. Similarly, a crab was much sought after by a moray eel and dropped its legs on almost every occasion. A second kind of moral eel was noted to feed upon *Conus*,breaking the shells in its powerful jaws and eating the meat.There were a number of pigs on the island, but the flesh of these tasted like fish,probably a staple item in their diet.

Among the colored slides used by Limbaugh to illustrate his talk were pictures of terns,boobies,personel,scenery,vegetation and various underwater dezizens. Among the birds, the blue-footed booby took every opportunity to live up to the booby part of its name, often laying its eggs below the high tide line. The fishery people found that if they made friends with these birds they were often rewarded with an offering- a regurgitated flying fish. Since there were several kinds of flying fish in the area the fish people kept busy making friends with the blue-footed boobies.

A rousing ovation was given Mr. Limbaugh upon completion of his talk and the showing of slides.

Crawford Cate explained the display of Cancellariidae and pointed out that although some 165 to 170 species had been named throughout the world only about 80 are valid. The Gulf of California has the greatest number of species with about 35. California has two, *C. cooperi* and *C.crawfordiana* , both from deep water. Cate's display included 44 species.

Emory Chace mentioned that *Cancellaria cassidiformis* had been extremely abundant as crab shells at Kino Bay last week. He then drew attention to the display of Clipperton Island shells he had brought from the San Diego Natural History Museum collection. These were some that had been collected during the Limbaugh trip by Mr. Harbison of the Museum.

Rose Burch introduced the guests who were present and then mentioned that Mrs. A.D. Howard, a member of our club for many years, had passed away. A card will be sent to her husband, Dr. Arthur Howard.

A smoking break was held from 9 to 9:15 P.M. and after the break Dr. Wendell Gregg read the proposed revision of the Constitution. After some discussion of various sections of the revision it was moved by Dr. Gregg and seconded by Amory Chace that it be accepted as presented. The motion carried unanimously.

John Fitch again mentioned the AMUPD meetings scheduled for July 9-12 at the University of Redlands.

George Kanakoff read a news item on the recent discovery of a new genus and species of Monoplacophora in the Eastern Pacific.

Dr. F.C. Parkhurst, invited the membership to attend the next regular meeting of the Long Beach Shell Club.

Faye Howard and Emory Chace reported on a field trip to Kino Bay. Collecting was especially good for Terebra sp. ,turrids,Conus regularis and a few others.

Dr. Donald Shasky reported on a collecting trip to Puertocitos where he obtained fair numbers of Mitra solitaria, and Neosimniasp. He also had worked up the material dredged at San Felipe and found the mussel Lioberus salvadoricus quite common.

Mark Rogers reported he had tallied 36 or 37 species from the concrete pilings in the vacant lot off Henry Ford Avenue near Anaheim St. These pilings had been pulled at Pier A in Long Beach Harbor.

Rose Burch reported that she and John were going to attend the AMU meetings at Philadelphia in June and Dr. Shasky asked her to represent the Conchological Club there.

John Burch reported enthusiastically on the first edition of " Indo-Pacific Mollusca" edited by Dr. R. Tucker Abbott. The first edition was a monograph of the Vasidae. Several other publications were mentioned including some by Dr. T. Soot-Ryen on mollusks from Panama,Peru and Chile, and another paper on Greenland mollusks.

The monthly door prize was won by Mrs. Ruth Richmond. Several items (Haliotis californiensis and Philene alba) were donated by John Fitch and a drawing was held for these too.

The meeting adjourned at 10:00 P.M.

Respectfully submitted,
John E. Fitch-Secretary

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The Los Angeles Times of May 16 carries a large display article about the expansion of Scripps Institution at La Jolla. It is to be made a general University of California campus. The regents see 25,000 registered students.

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Mrs. Jean Kauanui will soon be associated with the Scripps Institution where she will be doing three types of work- labratory assistant, research diver and air pilot. She was one of the earlier licensed divers of California and has had experience here, and also in the south Pacific and especially at Guam where Mr. Kauanui is stationed. Jean received her flying experience in military service.

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*** Note*** The next issue of the Minutes will be a double issue for July and August, and will probably be mailed in August.

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Allyn G. Smith of the California Academy accompanied by Mrs. Smith is enjoying a tour of Europe. Amsterdam,Venice,Rome,Lisbon, Madrid, a boat trip to the Dodecanese Islands etc.

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New Publications

Bulletin of the Southern California Academy of Sciences- Vol.58, Part 1,Jan.-Feb.,1959- Following papers on mollusks -

A New Species of Sea Hare from California Waters- by Lindsay R. Winkler- Aplysia (Neaplysia)nettiae-- Mouth of Topanga Canyon, Malibu, Calif.

Pliocene Marine Deposits in Northwestern Baja Calif.,Mexico, with the Description of a New Species of Acanthina by Leo G.Hertlein and Edwin C. Allison. The new species is Acanthina emersoni Hertlein & Allison. This is a very interesting paper in particular for those who are now making such a study of Baja California. Pages 17-25 inc.2 plates,several charts.

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MINUTES 190
JULY-AUG. 1959
CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

Subscription $2.50 per year

News of shells and shell affairs should be mailed to the editor,

John Q. Burch,
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Los Angeles 62, Calif.
Phone Ax 3-5710 or
Ax 2-7965

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Olividae- John Q. and Mrs. Rose L. Burch pages 2-6
Reports of the meetings of the American Malacological Union at Haverford College, Pennsylvania, and of the meeting of the Pacific Division at the University of Redlands pages 7-9
Review of publications received pages 10-13
Minutes of the Conchological Club of Southern California pages 14-16
The Lost Operculum Club pages 17-23

Our visit to study the collections in the United States National Museum,Academy of Natural Sciences of Philadelphia, and the American Museum of Natural History has resulted in a number of changes in both nomenclature and our diagnosis of some species. Discussions of these will follow in future issues of these papers.

Oliva cylindrica Marrat,1867 Ann.Mag.Nat.Hist.,Vol.20,(3rd series), 1867, p.214

Ref. Our discussion of Oliva ornata Marrat in Min.181,p.20. Our conclusions in Min.181 remain unchanged regarding the assignment and distribution of species and varieties. We assumed that inasmuch as both cylindrica and ornata were described in the same publication it would be proper to maintain the name ornata which is much better known.However, we overlooked the fact that Oliva ornata Marrat is a primary homonym of Porphyria ornata Röding, 1798,Mus.Bolt., 33. Inasmuch as there is no doubt that O.cylindrica Marrat and O. ornata Marrat are the same, we must change the name to Oliva cylindrica Marrat, placing Oliva ornata Marrat in the synonymy.

We trust that this will terminate this matter having been unable to locate any earlier use of the name cylindrica which is very descriptive of this species. Cossmann,Jour.Conch.,vol.61,pl.5,figs, 2,3,1913 described a fossil Oliva cylindrica which is an obvious homonym. We will leave this for some paleontologist to adjust.

J.R. le B. Tomlin studied Marrat's types in the Liverpool Public Museums, and his notes were published and edited by W.K. Ford, The North Western Naturalist, Sept.,1953. Tomlin's notes follow,"Three syntypes. Borneo. Orig. of Fig.194 in Thes.Conch.,26 mm x 16 mm. Two others , 44 mm. x 19 mm. and 45 mm. x 19 mm. Same species as O. ornataMarrat.(T.) (O. cylindrica precedes O. ornata and therefore has priority. (W.K.F.)" End quote. Tomlin's notes on Oliva ornata in the Liverpool Museum follows," Two syntypes.Australia. Orig. of Fig.102 (Thes.Conch.), 39 mm. x 16 mm. Orig. of Fig.103, 45 mm. x 19 mm." End quote.

We studied the type, No.15880, Acad.Nat.Sci.Phil.,Borneo,which was one of Marrat's types.It is the same species we discussed as O. ornata.

We noted another set of Marrat's types in the A.N.S.P., No.150597, from Broome,Western Australia. This is the brown form mentioned in our discussion,Min.181,p.21, and if this dark Australian form is indeed separable which we doubt, it would seem logical to give it the name Oliva cylindrica variety lignaria Marrat,1868. The types are of Oliva lignaria Marrat,1868,Ann.Mag.Nat.Hist.,Vol.2(4th series),p.212. The holotype is in the Liverpool Museum and mentioned by Tomlin. The ANSP shell is presumably a paratype.

While we are confident that we have all grades of intergradation, and the species, Oliva cylindrica Marrat, is one biological entity, it is also to be noted that in case the Australians wish to consider their shells separable from the Indo-Malaysian-Philippine-Japanese etc., they must find another name for them.

In the synonymy of Oliva cylindrica Marrat,1867 we should perhaps include the following. Oliva callospirata Carpenter MS.This name was brought to our attention by the recent publicationsof Dr. Katherine V.W. Palmer, and listed as a set in the Carpenter types in the Redpath Museum, Nautilus, vol.58,p.100,1945. Inasmuch as Carpenter never described nor figured the species, the name is nomen nudum. Had Carpenter described it in any way his name would have priority. We noted a set in the collection of the U.S.N.M. labelled Oliva callospirata Carpenter MS, types. The shells are(con.

identical with specimens called cryptospira by Ford,1891, and which we must now accept as a color form of Oliva cylindrica Marrat.

A few additional records of passing interest for Oliva cylindrica Marrat. Set No. 232248, U.S.N.M.,Jolo,Philippines. This set is the not uncommon pattern of mottled orange,but with decided lavender interior of the aperture. No. 343645,Riu Kiu Ids. The shells are typical of the specimens with the callused apex, but higher spired than most from the Philippines etc. Some material in the collection of the Acad. N at. Sci.Phil. No.111612 labelled type-Oliva sericea fordi Johnson. The shells are typical O. cylindrica. No. 111623, Java. Specimens are the same as those from the Philippines.No.128326, Ceylon- same as above. No.15118,Singapore-same as above.No.15878, Type, Oliva cryptospira Ford.The specimens are of Oliva cylindrica of a yellow color with darker,pattern showing through. No.93489, Burma-same as Philippines. No. 111622,India-same with callused apex. Another set labelled Oliva sericea irisans Lamarck form zeilanica Lamarck. These shells are the same as Ford's cryptospira but possibly younger with somewhat less callus.

A few sets of Oliva cylindrica noted in the collection of the American Museum of Natural History, New York . One set No.45408, Borneo, is surprisingly correctly labelled Oliva cylindrica Marrat, and is typical of the species. Another set is labelled Oliva irisans var. concinna Marrat. These shells are typical O. cylindrica in form, but of an unusual color pattern being banded so distinctly as to be at first glance misleading. They are not O. concinna Marrat which we consider a form of Oliva tremulina Lamarck.

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The following paper was read at the meeting of the American Malacological Union at Haverford College,Pennsylvania, and with few minor alterations at the meeting of the Pacific Division at the University of Redlands.

Systematic Classification in the Olividae

By John Q. Burch

Few, if any, families of mollusks can boast of a greater synonymy than that of the olives.

There are no doubt some authors in every group who proceed upon the view that any difference, however slight, is sufficient to constitute a separate species.Others may seem to go to the other extreme and hold many seemingly distinct animals to be of one species in an endless variety of forms.

The genetic organization of many species of the Olividae permit an almost incredible variation in color, and to some extent in form as well. F.P. Marrat, after having described a great many species, concluded with the following comment," Specific differences ,confined within limited areas,constitute the exceptions, not the rule. In almost every case,where the shells can be obtained in numbers, they approach the so-called species above and below them, so as to render it a matter of uncertainty whether they should constitute a variety of the one or the other." End quote. We recently had over sixty variations of one species of Oliva on our study table. Several of them had been named. One was very aptly named coniformis because of the heavy shoulder at the suture. Another had been named castanea,a solid brown lacking all pattern. Trays of specimens of the shape of coniformis and the color of castanea along with complete intergradation for all, made the disposition of this and similar groups a simple matter of adding to the synonymy. (con.)

However,the tendency of some recent writers to describe a new genus to contain each variation compounds the problem. It is far easier to identify a specimen to species in many families than it is to solve the maze of taxonomic confusion surrounding the assignment to a proper genus. Authors of some geographical provinces have described a multitude of genera. It is easily understood how they succeed in placing the same species under several of their generic names.
The authors of generic names in the Olividae may be roughly classed in two groups. First- Those who consider only morphologic characters ignoring geographic distribution and the ecology of the species involved. Second-Those who stress geographic distribution, erecting an entire systematic structure to contain only the species known from one province. These ignore relationship with any other fauna.
We have authors devoted to each of these groups, and an attempt to reconcile their work is the task of a student seeking the relationship of species on a basis of global distribution.

A phylogenetic study involves rather more difficulty than in most families. The Olividae are not an abundant fossil in most older formations.

In view of the tendency toward variation, it would seem that systematic divisions in the Olividae should be based upon permanent structural differences in the animals rather than the shells alone. This brings up a problem peculiarly in the province of the malacologist and the geneticist. As students of the shells, as d distinct from the soft parts of the animal,we wish to thank those qho have given us their assistance and advice.

Unfortunately, the specialists on anatomical studies are far from being in complete agreement. What amount of difference and of what organ or organs is sufficient to form the basis of a separate genus ? Divergent views of whether certain characters are important or trivial may be expected as long as the personal element persists in observers. Obviously,no two animals are identical in every way, and if minor anatomical variations are accepted, all will be in a genus alone with the complete elimination of such a taxon as species

Our refusal to accept some generic changes does not infer a lack of appreciation for the scholarly work done by some authors on the species involved. It would seem to be possible to accept radular studies without disrupting every check list from Linnaeus to date.

The Radula

Recent literature is prolific with radular studies. The value is beyond question. We have a collection of mounted slides of radulae containing those of most of the species of the West Coast. The variation in some species is so great that to figure the radula of one individual would at times be quite misleading.

Thiele used the radula consistently in classifying the whole class of the Gastropoda. Subsequent work has modified Thiele's framework to a great extent as additional forms have been determinea and described. Dr. R.K. Dell in 4 Archibenthal Mollusca of New Zealand" (Wellington,1956) pointed out that no extended study has been made on the variability of the radula on a large scale.

(con.)

It was his conclusion that in a group where other characters are variable, the radula is often just as variable, often within wide limits. Dell gives the details of several good examples. In *Austrofusus*, for example, of ten specimens obtained in the same haul of the trawl and outwardly indistinguishable, one specimen had four cusps on the central toorh, seven had five, and two had six. These obviously do not represent unusual or individual aberrations. There can be no doubt that the radula is a useful systematic character, but it must be used in conjunction with all other available characters. Axel A. Olsson has published some excellent work on the genus *Olivella*, but comparatively little work has been done on the other groups of the family in recent years.

A large part of the scattered literature on the radular and other anatomical characters of the family have resulted in descriptions of new genera. This brings up a straight question.
Is it your opinion that many generic names are more useful than fewer broad genera with subgenera and sections ?
We wish to conform to the opinion of the majority of serious students.

Our experience in the olives has been to find that many of the generic names in the literature can only be maintained by a description of the type species and so restricted. When another species appears with characters placing it in two different genera, the only alternative seems to be to describe it as another genus.

The problem of the old wood cuts is still with us. We have no intention of attempting to circumvent nor ignore the Museum Boltenianum. This was made nomenclatorially available by the famous or infamous Opinion 96 of the International Commission, and later Röding designated as the author. When it is possible with reason to determine the species of Röding's references, there should be no question of accepting it.
However, there seem to be a few who are disposed to make a Röding reference something analagous to the well known " Sacred Cow". Reason should indicate that this work or any other work should be ignored when the references are so confused that the matter becomes a subject of guesswork or personal opinion, and furthermore when such guesswork is designed to replace scholarly descriptions thoroughly intrenched in the literature for close to two centuries. Typical of a number of problems in this connection may be Röding's *Porphyria reticulata*. The references to Lister, Rumphius, and Martini obviously include several different species. The clearest figure seems to be that of Rumphius and is surely *Oliva textilina*, certainly not Lamarck's *sanguinolenta*. Must we accept a subsequent reviser's wild guess on such a problem ? Is there no defense of common sense ? However, if it is the opinion of a majority of the serious students that Röding's *reticulata* should be accepted in place of Lamarck's *sanguinolenta*, then, by all means, let us get together and use that name instead of the several now in use. We have noted from the studies of Henry Dodge in his series, A Historical Review of the Mollusks of Linnaeus, that to this day many of them remain puzzles. The old pre-Linnean authors left us some excellent art, but failed to figure the characters we wish to study.

(con.)

In conclusion-First- It is often stated that systematic zoology is a language of science. If this be true, it should follow that the system establish a means of communication.
To that end are many generic names more useful than fewer broad genera with subgenera and sections ?

Second- The burden of proof should definitely be upon the author who wishes to replace a systematic name established in the literature by generations of usage, and particularly if such change is based upon a belated recognition of an old pre-Linnean wood cut that has been thought to be unrecognizable by over two centuries of scholarly workers.

The opinions of our fellow students is sincerely solicited.

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Edward Winslow Gifford-1887-1959
The death of Professor E.W. Gifford on May 16,1959, brought to an end a distinguished career of scholarship and research. His work and publications in the field of ornithology and anthropology were outstanding and will certainly be properly reviewed elsewhere. Our association with Professor Gifford and Mrs. Gifford began while he was curator of the Museum of Anthropology of the University of California. His interest in the family Olividae really began with his study of shell artifacts, but quickly passed far beyond that interest. Dr. and Mrs. Gifford travelled extensively collecting great numbers of many species of the Olividae for population studies. Their work in this field was published in the Nautilus in a series of articles. The large collection of this family accumulated by the Giffords was given to the California Academy of Sciences and it was our priviledge to study the collection earlier this year. We recall with pleasant memories the collecting trips we made accompanied by Professor and Mrs.Gifford always in search of colonies of some species of the Olividae. Their population studies left little to be added.

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The American Malacological Union- 25th Meeting, Haverford College, Haverford,Pa. June.30 to July 3,1959.

By Mrs. John Q. Burch

It was an honor to present official greetings to the A.M.U. at Haverford College from the A.M.U.P.D., Conchological Club of Southern California,Long Beach Shell Club, and the Pacific Shell Club, at the 25th annual meeting.

Haverford College is a men's Quaker college. Our own Dr. Joshua L. Baily Jr. was a freshman there 50 years ago.He literally got out of a hospital bed to attend this meeting and delivered in a splendid manner an address " Some Conchological Miscellanies."

Dr. R. Tucker Abbott, the A.M.U. president,the officers and host society, the Philadelphia Shell Club, could have done nothing more for the comfortof the 150 persons who attended the meeting. We were all housed in a new dormitory. There were comfortable lounges where we visited between sessions and long into the nights. Our meals were nicely served in a large private dining room, and the food was excellent and abundant.

At the first session, June 30, the president, Dr. Abbott, called the meeting to order. The college president greeted us with a hearty welcome followed by response from Dr. Abbott. This was followed by several scientific papers. The second day we had split sessions,a popular session at Roberts H all and a scientific session a short distance away in Chemistry Hall. July 2, our third day, started with the business session and was followed by two papers. At the business meeting the regular order of business was conducted followed by reports of the member clubs.

Dr. Katherine Van Winkle Palmer of Ithaca, New York, and Dr. Thomas E. Pulley of the Museum of Natural History of Houston,Texas were unanimously elected president and vice-president. The chairman of the A.M.U.P.D. is automatically according to the constitution of the A.M.U., 2nd vice-president. John E. Fitch of California, Alger Blaine of Florida and two others were elected councillors at large. Dr. Paul Bartsch was elected Honorary President. Dr. Ralph Arnold of California, and Dr. Julia Gardner of the Geological Survey, were elected to honorary membership in consideration of outstanding contributions to the science of conchology.

This afternoon, July 2, we were escorted in two large busses and private cars to the Academy of Natural Sciences of Philadelphia where we viewed the exhibits and enjoyed a tour of the department of mollusks, and were served tea from a charmingly appointed tea table in the natural habitat group section of the academy.After this we were returned to the college to freshen up for the evening when we were returned to the academy where general and Mrs. Frank Schwengel (Dr. Jeanne Schwengel) entertained with a cocktail party. This preceded the scrumptuous banquet. The director of the academy gave an address on " Leisure". One of our older members was heard to say," How could such a young man speak with so much knowledge of leisure ?"

On July 3rd we had early breakfast and left by busses and private cars for a field trip, marine,land,freshwater, and fossil shells at the New Jersey beaches, and a tour of the Snow Clam Canning factory at Wildwood, New Jersey. Picnic lunch was enjoyed at Cape May Point, N.J. This was a scenic trip of over 200 miles. When we returned to Haverford College we were fewer in number as some had packed up before leaving and were on their way. Some remained another night while others changed and packed and took to the road.

(con.)

Haverford College, Pa. is on the outskirts of Philadelphia in the midst of many large and beautiful trees.
From the records it would appear that this year's A.M.U. meeting had the largest attendance yet recorded.

The papers read at the meeting follow.
In Search of Neopilina by Arthur H. Clarke, Jr.
Origin of the Land and Fresh-Water Mollusks of the Bahamas by William J. Clench
Classification in the Olividae by John Q. Burch
The Strange Phenomenon of Autotomy in Tremoctopus by Richard W. Foster.
Popular Session-
Sanibel Island Shell Fair by Lulu B. Siekman
Small Beginnings by Adlai B. Wheel
Eazly Philadelphian Conchologists by John D. Parker
Mechanics of a Shell Club by Robert J. Wagner
Expedition to the Philippines by John du Pont
Shell Collecting Around the World by Joseph J. Kuchar
Our Experiences Photopgraphing Mollusks by Theophil Kuczynski
Scientific Session
Some Conchological Miscellanies by Joshua L. Baily Jr.
Some Tecniques for Anatomical Work by Ruth D. Turner
Marine Zoogeography, with Special Reference to the South Pacific Area by Harald A. Rehder
The Ehh Mass and Gross Embryology of Pleurocera calaliculatum (Say,1821) by Joseph Rosewater
Unearthing Gould's Types by Richard I. Johnson
Observations on Murex stainforthi and M. monodon by Virginia Orr
Chromosomes of Pomatiopsis and Oncomelania by John B. Burch
Quantitative Sampling of Aquatic Mollusks by Charles B. Wurtz
The Coosa Revisited by Paul F. Basch
The Mollusks of Bernard Palissy by Aurele La Rocque
Xanthonychidae (Pulmonata) by H. Burrington Baker
Subspeciation in Triodopsis by Joseph Vagvolgyi
The Mollusk Fauna of Bahamian Mangroves by Robert Robertson
Collecting at Broome,Western Australia by Virginia Orr

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American Malacological Union Pacific Division, Twelfth Annual Meeting. University of Redlands, Redlands, California, July 9-12.
The meeting was called to order by the chairman, Mr. John E. Fitch, July 9th, at 1:30 P.M. A cordial welcome was extended by the university president. Mr. Fitch responded and made necessary announcements before the scheduled papers were started.
The committee in charge of arrangements did an outstanding job except to control the heat which rivaled the heat at Haverford during the A.M.U. meeting
A field trip to B luff Lake, elevation 8,000 ft.in the San Bernardino mountains was enjoyed by the more hardy members.
The banquet, Saturday evening, was an evening long to be pleasantly remembered. Decorations-shell gifts for all. Corsages for the ladies helped to make this a festive evening.
Museum curators attending were-
E.L. Bousfield- National Museum of Canada
E.P. Chase (Mr. and Mrs.) San Diego Natural History Museum
Howard R. Hill- Los Angeles County Museum
William K. Emerson- American Museum of Natural History
A. Myra Keen- Stanford University Paleo. Museum
Allyn G. Smith- California Academy of Sciences

(con.)

Alan Solem- Chicago Natural History Museum
Rudolf Stohler- University of California, Berkeley

The following officers were elected

Chairman- Rudolf Stohler
Vice-Chairman- Howard R. Hill
Secretary- Lucille Zellers
Treasurer- Jeanne Cate

The program was varied and well presented. Many papers were illustrated with moving pictures, kodachromes, or charts.

Papers read were-

Minamata disease- a new neurological disorder resulting from the eating of Japanese shellfish and other marine organisms by Bruce W. Halstead
Malacology in the National Museum of Canada by E.L. Bousfeld
Some recent finds of interest in West Mexican Mollusca by S. Stillman B erry
Some observations on tropical West American cones by Howard R.Hill
The abalones of California by Keith W. Cox
Oysters and oyster predators in California by Harold G. Orcutt
The interpretation of Neopilina by W. Patrick Milburn
Studies on the feeding habits and venom of several species of Conus by Paul R. Saunders
The Molluscan Section, British Museum of Natural History by A. Myra Keen
The Cape San Lucas submarine canyon by Conrad Limbaugh
Collecting land snails in the Cape San Lucas region-Allyn G. Smith
Reproductive activity and related biochemical events of two West Coast chitons by Richard A. Boolootian
Molluscan work at the Chicago Natural History Museum by Alan Solem
Eighty years experience as a conchologist by Ralph Arnold
Increasing complexity in the problems of the giant African snail by Albert R. Mead
The London Colloquium on Taxonomy, and its consequences by A. Myra Keen
Bathyscaphing in the Mediterranean Sea by Andreas Rechnitzer
The red tide of 1958 at Ensenada by Rudolf Stohler
The nature and relationships of the Panamic fauna as manifested by the mollusca by S. Stillman Berry
Derivation of the Helminthoglyptinae with particular reference to the desert forms by Wendell O/ Gregg
A quantitative study of evolution in Pecten by Joshua L. Baily Jr.
The puzzling case of Haliotis emmae by Robert R. Talmadge
Systematic classification in the Olividae by John Q. Burch

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Publications Received

Johnsonia- Vol.3, No.39,June26,1959
This issue is titled a review number and apparently closes volume 3 with an index.

One of the articles of unusual interest to us the treatment of the species Murex (Phyllonotus) pomum margaritensis Abbott. We have discussed this species in these papers on several occasions. The species has been known for over a century as Murex imperialis Swainson , and all references in the literature will refer to this name until recently Dr. R. Tucker Abbott found that Fischer back in 1807 had used the name imperialis and gave it the name margaritensis all of which is quite proper according to the rules. The reason this species is of particular concern to us is that this species is the type species of the genus Phyllonotus. This is important because of the very close relationship of this species with the large species of the west coast. Many specimens resemble the Panamic Murex regius so closely as to leave almost anyone incredulous at a suggestion that the two species are generically distinct. Recent suggestions that they all be grouped with the well known Murex endivia Lamarck and called Hexaplex is not too convincing. Perhaps we had better dig up some more generic names so each species will have one all it's very own.

However, Dr. Clench is to be congratulated. He calls them Murex with which there can be no disagreement. Dr. Clench has obviously placed margaritensis as a subspecies of pomum .This seems logical to my eyes.

As a matter of fact does this aggregation not compose a perfect example of 'Rassenkreis' which may be briefly defined as " A polytypic species composed of several subspecies."?

Having hazarded an opinion above it may be apropo to insert a direct quotation. George Gaylord Simpson in " The Principles of Classification ..."states, " It is the superspecific categories that splitting now most requires attention and correctives. In theory it is possible to say that the number of animal species is fixed and objective, or nearly so,but the author of higher units is subject to no limitations other than that they cannot, at any one level, be more numerous than the species. What is deplorable is the tendency to raise the ranks of groups without need, that is,without gaining any practical advantage.One of the more evident symptoms of this tendency is the appearance of many monotypic units in classification. If a classifier makes mostly monotypic families,genera etc., it is a fair statement that he is giving family rank to what should be called genera, generic rank to species etc. .... Specialists on particular groups almost always have a tendency to exaggerate ranks within their specialty,unless this is consciously perceived and corrected. They see differences more clearly,and their main occupation is likely to be analysis. Having special knowledge,the multiplicity of names is more helpful than difficult for them within a given field,and they do not always appreciate the great inconvenience experienced by the more general student to whom this field is one of many."

The genera Hemitoma and Diodora in the Western Atlantic by Ruth D. Turner is clearly written and the figures indicate the distinctions well. It is assumed that many of us will start out by changing our labels from Emarginula to Hemitoma for these species although we have our West Coast specimens assigned to Hemitoma and various subgenera.

Publications

Journal de Conchyliologie Vol.XCIX- No.1 Feb.,1959
Papers in this issue follow-
Les Hydrobia (Bythinellidae) De L'Ouest de la France- pp.3-14,1 pl by Albert Lucas
La Collection De Caecidae Du Marquis De Folin Au Museum National D'Histoire Naturelle ,pp.15-42,2 figs. This paper is of unusual value because it contains a catalogue of species as well as some new species and a general discussion of the genus. The collection seems to be world wide but includes a number from Panama, West Indies etc. The student of this semi-microscopic group will find this paper a necessary reference. The author is B.S.Kisch
Periostracon,Ligament et Byssus Examines en Lumiere De Wood by P.H.Fischer

Evidential Factors in the Identification of the Linnaean Mollusks by H enry Dodge- Journal of the Linnean Society of London, Zoology, Vol. XLIV, No.296,April,1959. pp.170-179.

This paper is of very great interest. Those of us who have used and studied the work~~es~~ of the author, A Historical Review of the Mollusks of Linnaeus, may at first think that this paper is more or less extracted, but this is not the case. In fact, the paper is very well named " Evidential Factors" and the problems are handled very much as a well trained lawyer might prepare a brief. All who are interested in basic systematics will find this paper indispensible.

Basteria- Vol.23, No.1 en 2, pp.1-32, 1959
De Spisula's van het Nederlandse strand by R.M. Van Urk pp.1-29, 7 illustrations. While this paper is a systematic study of the Dutch species of Spisula it is beautifully written and figured. The several characters used by the author for the identification of species are carefully described and this paper should be of great value to any student working with this group of which a number of species are recognized from this coast.
De identiteit van Leda excisa Nyst, non Philippi by J. Van Dalsum
Notes on the Turridae from the Plio-Pleistocene of the Netherlands by C.O. Van Regteren Altena.

Description De Una Especie Nueva De Pomacea De Venezuela by T. Pain and Sergio Arias C., Novedades Ciebtificas, Serie Zoologica, No.24.,Dec.,1958. ..Pomacea falconensis n. sp.

Invertebrates from the Estuarine Portion of San Francisco Bay and Some Factors Influencing Their Distribution by Francis P.Filice The Wasmann Journal of B iology, Vol.16, No.2, Fall,1958 pp 159-211,map, 3 ill. This is a well written paper with both systematic explanations and the ecology.

The Effect of Wastes on the Distribution of Bottom Invertebrates in the San Francisco Bay Estuary by the author of the above, The Wasmann Journal of Biology,Vol.17,No.1,Spring,1959

Notes on the Genus Taheitia (Truncatellidae) in New Guinea with the description of a new species by Ruth D. Turner, Occasional Papers on Mollusks, The Dept. of Mollusks, Museum of Comparative Zoology, H arvard University,Cambridge, Mass.

Inland Mollusks from Venezuela,Southern Brazil, and Peru by Fritz Haas, Fieldiana.Zoology, Vol.39, No. 31, May,1959. New species are Dryptus lasalleanus,Epiphragmophora connectens.

Publications

Journal of the Marine Biological Association of the United Kingdom Vol.37,No.3,1958- Growth of Oysters by P.R. Walne.The occurence of gallium in marine organisms by F. Culkin and J.P. Riley. The breeding of the scallop, *Pecten maximus* (L.)in Manx waters by James Mason. Vol.38,No.1, Feb.,1959. A porphyrin pigment in the integument of *Arion ater* (L.).Carbohydrate levels in *Patella* by R.J.C. Barry and K.A. Munday. The growth stages of the lophophore of the brachiopods *Platida davidsoni* (Etudes Deslongchamps) and *P. anomoides* (Philippi) with notes on the feeding mechanism by D. Atkins. A new species of *Platidia* (Brachiopoda) from the La Chapelle B ank region by D. Atkins. Vol.38, No.2,June,1959. The habits and feeeding organi~~sm~~ of *Dentalium entalis* by J.E. Morton . Feeding in Nudibranch Larvae by T.E. Thompson. On the structure,biology and systematic position of *Pharus legumen* (L.) by C.M. Yonge. (The last three papers mentioned are all of unusual interest). A linear pattern on the sea floor and its interpretation by A.H. Stride.The early growth stages and adult structure of the lophophore of *Macandrevia cranium* (Muller) (Brachiopoda, Dallinidae) by D.Atkins.

Anais Do Instituto de Medicina Tropical,Lisboa,Portugal This large and excellent journal contains numerous lengthy papers of interest to those concerned with Bilharzia. A discussion of the many articles of interest largely to doctors of medicine or parasitologists would seem out of place here other than to call attention to the work being done.

Vector Snail Control in Qalyub,Egypt by Henry van der Schalie, Bull. Org.mond.Sante'-Bull. Wld.Hlth. Org. 1958. The snail control project has been surprisingly successful.

Experimental Conditions to be Considered and Reported in Studies of Schistosomes and Their Hosts. This paper is one with whom Dr. van der Schalie had a number of collaborators.

The types of Corbiculidae and Sphaeridae (Mollusca:Pelecypoda) in the Museum of Comparative Zoology, and a Bio-Bibliographic sketch of Temple Prime, and early specialist in this group. by Richard I. Johnson. Bulletin of the Museum of Comp.Zool.,Vol.120, N o. 4. May,1959 pp.431-479, 8 pls.

Land and fresh-water mollusks of Great and Little Inagua,Bahama Islands by William J. Clench. Bull. Mus. Comp. Zool., Vol.121, No. 2, May, 1959

The ecology of the snail, *Lymnaea humilis* Say by Bruce M. McCraw Trans.Am. Micro. Soc., Vol. LXXVIII, No. 1,Jan.,1959

Notes on the ecology of slugs: *Arion circumscriptus*,*Deroceras reticulatum*, and *D. laeve*. by Lowell L. Getz. Am. Mid. Nat.,Vol.61, 485-498, 1959.

The anatomy of Laevapex fuscus, a freshwater limpet (Gastropoda) Pulmonata) by Paul F. Basch Misc. Publ. Mus. of Zool.,No.108, Univ. of Mich., Ann Arbor, Mich.

Pliocene and Pleistocene Sphaeriidae (Pelecypoda) from the central United States by H.B. Herrington and Dwight W. Taylor Occ. Pap. Mus. Zool., Univ. of Mich., Ann Arbor,No.596.

Results of the Puritan-American Museum of Natural History Expedition to Western Mexico 5. Pliocene and Pleistocene Megafossils from the Tres Marias Islands by Leo G. Hertlein and William K. Amerson. Am. Mus. Novitates,No.1940,June 5,1959.

Extinct or near extinct colonies of tree snails,Liguus fasciatus, in Eastern Broward and Northern Dade Counties, Florida by Frank N. Young. Occ. Pap. Mus. Zool., No.595, Ann Arbor.

Two new Pleurocerid snails from eastern Mexico by Fred G. Thompson Occ. Pap. Mus. Zool.,No.600,April,1959, Ann Arbor, Mich.

Status of the genus Gundlachia (Pulmonata,Ancylidae) by Paul F. Basch. Occ. Pap. Mus. of Zool.,No.602, Univ. Mich.,Ann Arbor May 4,1959

Report on the Mollusca chiefly collected by the S.S. Soyo-Maru of the Imperial Fisheries Experimental Station on the continental shelf bordering Japan during the years 1922-1930. Part 4. Lamellibranchia (2) by Tadashige H abe pp 19-52, 2 pls. Seto Marine Bio. Lab.,Vol. VII, No. 1,Dec.,1958.

The molluscan fauna of Ariake B ay I by Tadashige Habe and Yataroh Tanaka , Rept. of the Investigation on the Ariake Sea-Seikai Regional Fisheries Research Lab., 1959.

The Molluscan Shells, edited by Katura Oyama Vol. II
The photography in this work is remarkably good, black and white but very fine. The volumes sell for $5.00 each. May be had frpm John Q. Burch.

Notes sur les limaces 5. Les Philomycidae et Limacidae de la republique El Salvador by C.O. van Regteren Altena Arch.Moll. Band 87, Bo.1/3, 1958

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Dr. G. Dallas Hanna of the California Academy of Sciences was awarded the Erasmus Haworth honor to distinguished alumni by the University of Kansas, his alma mater.

Dr. Hanna is working with the zoology department of the University of Arizona and the University of Sonora to help select a site for a marine biological station somewhere on the northern part of the eastern shore of the Gulf of California. The station will be jointly operated by the two universities.

Conchological Club of Southern California- June 2,1959-Minutes

The meeting was called to order at 7:30 P.M. by the president, Dr. Donald Shasky. Fifty-nine members and guests were in attendance. The minutes of the May 5 meeting were read and approved.

It was announced to the group that Mark Rogers and Bruce Campbell were to visit George Kanakoff, Chairman of the Lost Operculum Club. This committee of three would meet and draw up some simple but binding rules for entering shells into competition. The rules will be announced at a future meeting.

Crawford Cate explained the evening's program, consisting of informal member displays of mollusks collected in the upper Gulf of California between San Felipe and San Luis Gonzaga and giant shells entered into competition in the Lost Operculum Club.

Crawford cate believes he may be the owner of a true lost operculum having received a Mitra gigantea recently that had an operculum glued to the cotton stuffed into the aperture.

George Kanakoff explained that the Lost Operculum Club began as a jokebut in time it expanded and became a real thing. The competition waxed keen for several months in 1950 and measurements on nearly 125 species were entered for the record. In checking the entries it was found that not only did some exceed the previously recorded maximum size, but other species represented new geographic or bathymetric range extensions.

Dorothy Brown, Rose Burch, Jean and Crawford Cate, Emory Chace, Helen DuShane, John Fitch, S. Ralph Hall, Ronny Hazlewood, Faye Howard, Mark Rogers, Ruth and Donald Shasky, and Jean Wilkins brought especially large shells from their collections to be measured and entered.

A complete list of all entries to date is appended. Supplementary lists will be issued from time to time.

Dorothy Brown, Sandra Delp, and Faye Howard reported on a recent collecting tripthey had made into the upper Gulf of California.

Ned Baker mentioned an Indian dress he had recéntly seen from the southwest that had 12 full length rows of Dentalium attached to it.

John Fitch exhibited a bottle containing some kelp scallops, Aequipecten latiauritus, attached to a pelagic red crab, Pleuroncodes planipes. Thousands of pelagic red crabs with kelp scallops attached have been observed in the area around Cedros Island during the past year.

Faye Howard showed some beautiful kodachrom slides of mollusks and scenery in the upper Gulf of California. Some of the mollusks she photographed were in exhibit for the group to admire.

Others who exhibited mollusks from the upper gulf were Mark Rogers (San Felope area), Crawford Cate(Panamic turrids), John Fitch (San Luis Gonzaga), Donald Shasky (San Felipe and Puertocitos), Helen DuShane (Puertocitos and San Felipe), and Dorothy Brown(San Felipe and San Luis Gonzaga). S. Ralph Hall mentioned having found two specimens of Spondylus at Cholla Bay that looked alive but upon close examination were found to contain an Octopus that was holding the valves closed.

George Kanakoff in discussing Crawford Cate's exhibit of Panamic turrids mentioned that the turrids were a very unique family in that the family contained more genera than species.

John Fitch showed some kodachrome slides of his recent trip to San Luis Gonzaga and, as the last order of business prior to an intermission at 9:20, Rose Burch introduced the numerous guests.

The meeting got under way again at 9:35 and Dorothy Brown reported upon a couple of interesting bits of life history information gleaned during recent field trips. It seems that Faye Howard in gathering Cassis centiquadrata to photograph was actually (con.)

(an innocently) organizing a large scale matrimonial bureau for the beasts.Except for the fact that they were later boiled for their shells,she could have been credited for singlehandedly contributing to a phenomenal increase in the population of Cassis centiquadrata . The other newsworthy item involved a Murex ,Muricanthus nigritus ,that was calmly consuming a Cantharus capitaneus while being made love to by another M. nigritus.

John Burch reported that molluscan publications are voluminous in all languages. Among the most recent items of interest were mentioned the Wasman Journal of Biology, Hawaiian Shell News,Bulletin of the Southern California Academy of Sciences,Texas Shell News, and Transactions of the San Diego Society of Natural History. William Emerson and Emory Chace had a paper on Pleistocene mollusks in the May 27,1959 issue of the Transactions of the San Diego Soc. Hist. Emory Chace mentioned that mimeogrpphed copies of the index to " Lowe" and " Pilsbry and Lowe" could be purvhased from the San Diego Museum of Natural History.

Home King announced that he and his wife will spend the next two months in Hawaii. He~~e~~ should have a fine report to render when he returns.

George Kanakoff would like to examine large series of Recent Sanguinolaria nuttallii and would appreciate assistance from the members who have good collections of them.

Rose Burch had errata sheets for Dr. Myra Keen's book for those who owned copies of the volume.

The door prize was won by Arnold Johnson and the meeting adjourned at 9:55 P.M.

Respectfully submitted,
John E. Fitch, Secretary

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Meeting of July 7,1959-

The meeting was called to order at 7:30 P.M. by the president,Dr. Donald Shasky.43 members and guests were in attendance.

The minutes of the June 2 meeting were read and approved.

Crawford Cate introduced the speaker of the evening,Dr. Alan Solem, Curator of Lower Invertebrates,Chicago Natural History Museum, w whose topic of the evening was," A Malacologist in Panama."

Panama is a Central American republic,lying between Costa Rica and Columbia.Its boundary with Colo,bia marks the division between Central and South America and the fauna includes orgamisms from both.The Panama Canal, crossing the narrowest and lowest point of land between the Atlantic and Pacific oceans,bisects the republic from sea so sea.Various mountain ranges, highest at the two borders,recede in elevation to a low point at the Panama Canal. Near the Costa Rican border is the mountain range Sierra de Chiriqui with its highest peak,Volcan de Chiriqui,reaching an elevation of 11,410 feet. On the Caribbean side of this range rainfall often averages from 128 inches at Colon to more than 155 inches further west.The forests are lush and moist and snail collecting is extremely good.On the Pacific side of this range, rainfall averages less than 70 inches, often as little as 10, per year and collecting is relatively poor.

Dr/ Solem illustrated his talk with a number of superb color slides of scenery,housing,transportation,ruins,people,jungle, animals etc.Some of the closeups of insects,snails,frogs,snakes, lizards, and such were among the finest one could hope to see. During his collecting in Panama, he procured some 20,000 lots of invertebrates for the Chicaho Natural History Museum. These had not yet been unpacked so it was impossible to have any on exhibit. Best snail collecting was in virgin forest,which was difficult to find.Here he was able to collect some 28 species of land snails

in a very limited area .Among the molluscan items obtained were several new records, including a first time collected since the types nearly 100 years ago,another first collected south of Mexico etc.Only two days were spent collecting marine mollusks and then in not too good an area. Upon completion of Dr. Solem's talk, Crawford Cate explained the display of West African material he had brought. It had taken him some 5 years to obtain his material, mostly by exchanging reprints, and other printed matter. In answer to a question from the audience,he explained that the plastic boxes he had many of the specimens in could be ordered in gross lots from the Diamond Box Co.,Roanoke,Virginia.

Rose Burch introduced the guests and a 15 minute inyermission was declared at 9:05 P.M.

After the break John Fitch gave a final report on and invitation to the AMUPD meetings to be held at the University of Redlands July 9-12.

Rose Burch gave a brief resume of the AMU meetings at Haverford College, Haverford, Pa., June 30 to July 3. Some 150 perople had been in attendance,making it the largest meeting to date.

Dr. Bruce Campbell reported having made a field trip to Guaymas w where he did some spearfishing,underwater photography, shell collecting and dredging.He collected 3 specimens of *Typhis coronatus* one of which was alive, in 10 fathoms.

Dr. Donald Shasky reported having gone to Puertocitos two weeks ago when desert temperatures were ranging from around 88° at night to 120° during the day.His prize, found on a white gorgonian, was a *Cyphoma emarginatus* measuring 25 x 15 mm. Needless to say, he entered this giant into the Lost Operculum Club.

John Burch reported having checked over a number of fine collections while on the east coast for the AMU meetings.He was able to solve many puzzling problems (molluscan) but, as is the usual case, many more were raised.

Among the recent publications to cross his desk ,one by Hertlein and Emerson in the American Museum Novitates and another by Henry Dodge were especially noteworthy.

George Kanakoff mentioned that on Jan. 1,1960, a new auditorium would be opened in the museum, capable of seating 1,000 people, and would be available for use. Unfortunately Tuesday nights were already reserved so in order to take advantage of the facilities of the new auditorium Rose Burch presented a motion that effective January 1,1960,we change our meeting night to the first Wednesday of every month. Crawford Cate seconded the motion and it carried unanimously.

The door prize was won by a guest, Mr. Stephen Steckbauer.

The meeting was adjourned at 9:50 P.M.

Respectfully submitted,
John E. Fitch, Secretary

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Lost Operculum Club
(Recorded up to July,1959)

Acanthina paucilirata Stearns	Descanso Bay,Calif. W.18mm. L.26 mm.,Morris Schick, 2,1950
Acanthina spirata Blainville	Morro Bay, Calif. L.40 mm. Morris Caruthers, 3,1950
Acanthina tuberculata Sowerby	Isla Spiritu Santo,W. Mex. W. 75 mm.,L.75 mm., Mrs,Dorothy Brown, 3,1959
Acmaea instabilis Gould	Neah Bay,Wash., H . 18.9 mm. L.40 mm. E.P. Chace, 2,1950
Acmaea mitra Eschscholtz	Fort Ross,Calif.,H.31 mm.,W.39 mm L.44 mm.,Robert O. Fox,6,1950
Acmaea patina Eschscholtz	Afognak Id.,Alaska, W.50 mm., L.63.1 mm.,Walter J. Eyerdam, 6,1950
Acmaea pelta Eschscholtz	Neah Bay, Wash., L. 42.9 mm., W.35.2 mm.,H. 16 mm., E.P. Chace, 6,1959
Acmaea triangularis Carpenter	Monterey,Calif., H. 4.4 mm, L 8.7 mm., E.P. Chace, 2,1950
Adrana suprema Pilsbry & Olsen	Tambor,Costa Rica, W. 16 mm., L.72 mm., H.W. Miller, 6,1950
Aforia circinata Dall	Izhut Bay,Afognak Id.,Alaska L. 63 mm.,Walter Eyerdam,3,1950
Anadara grandis Brod. & Sowerby	Puntarenas,Costa Rica, W. 114 mm. L. 127 mm. H.W. Miller,6,1950
Anadara multicostata Sowerby	Newport Bay,Calif. H. 90 mm. W. 120 mm.,Morris Caruthers 3,1950
Anatina undulata Gould	Lacmip 66-2,Upper Pleistocene L.136 mm., L.A. Museum Inv. Paleo.1,1950.
Agaronia testacea Lamarck	Panama Bay, L. 66 mm. Capt. W. S. Bitler, 4,1950
Astraea gibberosa Dillwyn	No. Loc., W. 62 mm.,L. 60 mm. E.P. Chace, 2,1950
Astraea undosa Wood	San Onofre,Calif.,W.122 mm., L.125 mm., Mrs. Rose Burch,6, 1950
Barbatia reeviana d'Orb.	75 mi.S. of San Felipe,.W.Mex. W.32.9 mm, L.81.9 mm.,H.60.3 mm. Mrs. Dorothy Brown, 6,1959
Beringius kennicottii Dall	Afognak Id.,Alaska, L.141 mm. Walter J. Eyerdam, 6,1950
Beringius stimpsoni Gould	Icy Cape,Alaska, W. 36 mm., L. 44 mm. Walter J. Eyerdam,6,1950
Boreotrophon stuarti Smith	Alaska, 50 mm., G.P. Kanakoff, 1950
Boreotrophon stuarti multicostatus Eschscholtz	Pliocene,Edison Bldg.,45 mm., G.P. Kanakoff, 1950
Botula falcata Gould	Cayucos,Calif. L.85 mm. Morris Caruthers, 3,1950
Brachydontes adamsianus Dunker	Boca de Barranca,Costa Rica, W.34 mm.,L.53 mm., H.W.Miller 6,1950
Burchia redondoensis (T.A. Burch)	Cabrillo Beach,Calif.(Suction dredge),L.50 mm. Dick Mayhew 1950

Bursa californica Hinds	Playa del Rey, Calif. L.149 mm., G.P. Kanakoff, 1950
Cancellaria cooperi Gabb	Moss Landing, Calif., W.83 mm. A. Sorensen, 2,1950
Cancellaria tritonidea Gabb	Sun Lumberyard, Pleistocene W.55 mm., L.91 mm., E.P. Chace 2,1950
Cantharus macrospira Berry	Cholla Bay, W. Mex., L.66.5 mm., W. 41 mm., S.R. Hall, no date
Cantharus pagodus (Reeve)	Panama Bay, W. 25 mm., L. 56 mm., Capt. C.M. Dumbauld, 4,1950
Centrifuga leeana Dall	LACMIP, L.A. Mus. (Lincoln Ave. Playa del Rey, Calif. Upper Pleis-tocene, 62 mm., 1950
Ceratostoma nuttallii Conrad	San Pedro, Calif., L.63.4 mm., E.P. Chace, 2,1950
Chlamys hericius (Gould)	Juan de Fuca Str., 93 mm, W.73 mm., Walter Eyerdam, 3,1950
Clinocardium nuttallii Conrad	Alaska, L. 146 mm., H. 136 mm., Diam. 102 mm., A. Myra Keen, 3,1950
Conus californicus Hinds	Morro Bay, Calif., L. 49 mm. Morris Caruthers, 3,1950
Conus dalli Stearns	Cape San Lucas, Baja Calif., L.78.6 mm., W.44.3 mm., C.N. Cate, 6,1959
Conus fergusoni Sowerby	Guaymas, W. Mex. (Shrimp boat) L.150 mm., W.87 mm., Dr. D. Shasky, 6,1959
Conus princeps Linne'	Guaymas, W. Mex., L.78.6 mm., W.45.7 mm., C.N. Cate, 6,1959
Conus purpurascens Broderip	Panama Bay, L.81 mm., Capt. W.S. Bitler, 4,1950
Conus patricius Hinds	Venado Beach, Panama, W.86.5 mm., L.136.5 mm., Capt. W.S. Bit-ler, 5,1950
Conus recurvus Broderip	Guaymas, Mex., L.92 mm., W.47.6 mm., Dr. Don Shasky, 6,1959
Conus regularis Sby.	Cholla Bay, W. Mex. L.55 mm., W.29.5 mm., S.R. Hall, 6,1959
Conus ximenes Gray	Cholla Bay, W. Mex., L.54 mm., W.28.5 mm., S.R. Hall, 6,1959
Crepidula princeps Conrad	Edison Bldg., Pliocene, W.59 mm., L. 82 mm., Geo. P. Kanakoff, 5,1950
Crucibulum scutellatum Wood	Puertocito, Baja Calif., H . 37.3 mm., L.71.7 mm., W.68.o mm., E.P. Chace, 6,1959
Crucibulum spinosum Sowerby	San Felipe, W. Mex., L.71 mm., W.67 mm., E.P. Chace, 6,1959
Cymia tectum (Wood)	Perlas Ids., Panama, W.38 mm., L.68 mm., Capt. C.M. Dumbauld, 4,1950
Cypraea cervinetta Kiener	Paloseca Beach, Panama, W.52.5 mm., L. 105 mm., Capt. W.S. Bitler, 5,1959
Dentalium semipolitum Brod. & Sby.	No. Loc., L.70 mm., E.P. Chace, 6,1959

Diodora aspera Eschscholtz	Neah Bay, Wash., W. 26 mm.,L.69 mm., E.P. Chace, 2,1959
Entodesma saxicola Baird	Puget Sound, Wash., L.115 mm. Walter Eyerdam, 3,1950
Eunaticina oldroydi Dall	50 fms.,Monterey,Calif. W.59 mm., L.60 mm.,E.P. Chace, 2,1950
Fasciolaria princeps Sowerby	Culebra Bay, W. Mex.,L.266 mm., H.W. Mille, 6,1950
Fissurella volcano Reeve	Rosarita,Baja Calif.,L.39.3 mm., E.P. Chace, 2,1950
Ficus ventricosa Sowerby	Guaymas,W. Mex., H.131.1 mm., W.82.1 mm., Dr. Don Shasky 6,1958
Forreria belcheri Hinds	Newport Bay, Calif., W. 107 mm., L.60 mm.,E.P. Chace, 2,1950
Fusinus dupetitthouarsi Kiener	Np. Loc.,A. Sorensen, 2,1950
Fusinus harfordii Stearns	Mendocino Co.,Calif. L.49 mm., E.P. Chace, 2,1950
Fusitriton oregonensis Redfield	Seattle,Wash. 122 mm., G.P. Kanakoff, 1950
Melongena patula (Broderip and Sowerby)	Guaymas,Mex., L.190 mm., A. Sorensen, 2,1950
Haliotis kamchatkana Jonas	Straits of Juan de Fuca, 50 mm., W.98 mm., L.140 mm., Miss Jean Cornell,5,1950
Haliotis rufescens Swainson	20 mi. So. of Pacific Grove, Calif. W. 207 mm.,L. 278 mm. A. Sorensen, 2,1950
Haliotis sorenseni Bartsch	Catalina Id.,Calif., L.215 mm., H. 102 mm. Mrs. Rose Burch 3,1950
Hinnites giganteus Gray	Juan de Fuca, L. 222 mm.,W. 168 mm., Walter Eyerdam, 3,1950
Jaton festivus(Hinds)	Morro Bay, L. 63. 7 mm.,E.P. Chace, 2,1950
Kelletia kellettia Forbes	Southern Calif.,W. 87 mm., L. 170 mm. Mrs. Rose Burch, 3,1959
Kellia laperousii Deshayes	Dana Point,Calif. W. 26 mm., L. 20 mm., G.P. Kanakoff, 2,1950
Laevicardium elatum (Sowerby)	Puertocito, W. Mex. L. 181 mm., W. 153 mm., Dr. Donald Shasky
Lima hemphillii Hertlein & Strong	Newport Bay, Calif. L. 30 mm. W. 21 mm., Morris Caruthers, 3,1950
Lithophaga attenuata rogersi Berry	30 mi.So. of Puertocito,W.Mex., L. 102.7 mm, W. 23.5 mm. Faye Howard, 6,1959
Littorina planaxis Philippi	Bello Beach, Marin Co.,Calif. L. 23 mm., Morris Caruthers, 3,1950
Littorina varia Sowerby	Mazatlan, W. Mex.,L.39 mm. Geo. P. Kanakoff, 5,1950
Lottia gigantea Gray	Ensenada, Baja Calif.,L.102 mm., W. 85 mm.,H.28 mm.,San Diego Soc. Nat.Hist. No date.
Lucapinella callomarginata Dall	Anaheim Landing,Calif. L.35 mm. E.P. Chace, 2,1950

Lucina annulata Reeve	Morro Bay, Calif. H.55 mm., L. 58 mm., Morris Caruthers 3, 1950
Lyria cumingii Broderip	Bahia de Los Angeles, Baja Calif. H. 35.2 mm, W. 19 mm., Helen Dushane
Macoma grandis Hanley	Tambor,Costa Rica, W. 63 mm., L. 85 mm., H.W. Miller, 6,1950
Mactra velata Philippi	Puerto Soley, Costa Rica, W. 85 mm.,L. 116 mm.,H.W. Miller 6,1950
Malea ringens Swainson	Tambor,Costa Rica, W. 145 mm.., L. 190 mm., H.W. Miller,6,1950
Massyla crawfordiana Dall	L. Pleist., LACMIP, 131 (San Pedro) L. 51. 8 mm., W. 22 mm. G.P. Kanakoff, 1950
Metula amosi Vanatta	Panama Bay (dredge) L. 36.2 mm., W. 12 mm., C.N. Cate, 6,1959
Maxwellia santarosana Dall	Dana Point,Calif. L.,40 mm. Morris Caruthers, 3,1950
Megapitaria squalida Sowerby	20 mi. So. of San Felipe,W. Mex. L.116 mm.,W. 104 mm.,Mrs. Dorothy B rown, 3,1959
Megasurcula carpenteriana Gabb	Monterey Bay,Calif.(50 fms.) L. 93 mm.,A. Sorensen, 2,1950
Megathura crenulata Sowerby	No. loc., 25 mm.,x 75 x 125 mm., E.P. Baker, 2,1950
Mitra attenuata Reeve	Tambor,Costa Rica, W. 26 mm., L. 53 mm. H.W. Miller,6,1950
Mitra belcheri Hinds	Guaymas, W. Mex.,L. 112 mm., W. 33.1 mm.,C.N. Cate, 6,1959
Mitra gigantea Reeve	Venado Id.,Panama, L. 60.3 mm., W. 15.9 mm.,C.N. Cate, 6,1959
Mitra idae Melville	Dana Point,Calif., 1.60 mm. Morris Caruthers, 3,1950
Mitra zaca Strong,Hanna, and Hertlein	Mazatlan, W. Mex., L. 126.7 mm., W,34.2 mm.,C.N. Cate, 6,1959
Modiolus flabellatus Gould	Morro Bay,Calif., L.170 mm., Morris Caruthers, 3,1950
Mytilus californianus Conrad	Point Pinos, Calif., L.220 mm., A. Sorensen, 2,1950
Natica aleutica Dall	Kodiak Id.,Alaska, W. 36 mm., L. 41 mm.,Geo. F. Kanakoff, 5, 1950
Neptunea lirata Martyn	Kodiak Id.,Alaska, L.152 mm., W.90 mm.,Walter Eyerdam 3,1950
Neptunea pribiloffensis Dall	Wrangel Id.,Alaska, L.101 mm., Gep. F. Kanakoff, 5,1950
Neptunea tabulata Baird	Straits of Juan de Fuca, L.112 mm., Walter Eyerdam, 6,1950
Ocenebra circumtexta Stearns	Cayucos,Calif. 39 mm., Morris Caruthers, 3,1950
Oliva incrassata nivea Pilsbry	Ensenada Blanca, 2 mi. N. of San Felipe,W. Mex. L.54.3 mm.., W. 31.8 mm. Mrs. Jean Wilkins 6,1959
Opalia varicostata Stearns	M. Pliocene,Pacific Bch.,Calif. L. 90 mm., Gep. F. Kanakoff, 5,1950

Ostrea laperousii Schrenck	Morro Bay, Calif. L.344 mm., A. Sorensen, 2,1950
Panomya turgida Dall	Seldovia, W. 50 mm.,L.90 mm., Walter J. Eyerdam, 6,1950
Panope generosa Gould	Henderson Bay,Wash.,H. 108 mm., L. 187 mm.,Mrs. George Bengston 5,1950
Parapholas californica Conrad	No. Loc., W. 70 mm.,L.130 mm.., E.P. Baker,2,1950
Patella mexicana Broderip and Sowerby	N o. Loc., L.188 mm.,Paul H. Steele, 2,1950
Patinopecten caurinus Gould	Wrangel Narrows,Alaska, L.230 mm. W. 192 mm., Walter J. Eyerdam, 3,1950
Pecten latiauritus monotimeris Conrad	Standard Oil Platform,2 mi. off Summerland,Calif.(40 ft.) L.50.i mm.,H. 53.1 mm. John E. Fitch,6,1959
Periploma planiuscula Sowerby	Boca de Barranca,Costa Rica, W.29 mm.,L. 47 mm.,H.W. Miller, 6,1950
Pholadidea ovoidea Gould	No. loc.,W. 80 mm.,L.125 mm., E.P. Baker, 2,1950
Phyllonotus brassica Lamarck	Mazatlan,W. Mex.,W.130 mm., L.173 mm., A. Sorensen,2,1950
Piliscus commodus Middendorff	Pribiloff Id.,Alaska, W.23 mm., L. 28 mm.,Walter J. Eyerdam, 6,1950
Placiphorella velata Carpenter	Piedras Blancas, W. Mex., L.62 mm., Morris Caruthers ,3,1950
Aequipecten (Plagioctenium) circularis (Sowerby) aequisul-catus Carpenter	Newport Bay,Calif. W.85 mm., L.96 mm.,Gilbert Grau,6,1950
Plicifusus kroyeri Moller	Gulf of Peter the Great,Russia, L. 70 mm., W. 27 mm.,Walter J. Eyerdam, 3,1950
Pododesmus macroschisma Deshayes	Morro Bay,Calif.L.102 mm., W. 105 mm., Morris Caruthers 3,1950
Polinices lewisii Gould	Southern Calif., W. 135 mm., L. 155 mm. Mrs. Rose Burch, 3,1950
Protothaca asperrima(Sowerby)	Tambor,Costa Rica, W. 47 mm., L. 55 mm., H.W. Miller, 6,1950
Protothaca tenerrima Carpenter	Vaughn Bay, Wash., H. 85 mm., L.117 mm., Mrs. George Bengston, 5,1950
Pterynotus foliata(Gmelin)	San Juan Id.,98 mm.,W.48 mm., Walter J. Eyerdam, 3,1950
Pterynotus trialatus Sowerby	Morro Bay, L. 85mm, E.P. Chace, 2,1950
Puncturella multistriata Dall	Pribiloff Id.,Alaska, W.30 mm., L. 38 mm.,Walter J. Eyerdam, 6,1950
Purpura patula pansa Gould	Mazatlan, W. Mex.,L. 80 mm., Gep. P. Kanakoff, 5,1950
Saxidomus giganteus Deshayes	Seldovia,Alaska, H. 85 mm., L. 110 mm.,Walter Eyerdam,3, 1950

Schizothaerus nuttallii Carpenter	Vaughn Bay,Wash.,H. 139 mm., L.206 mm.,Mrs. George Bengston, 5,1950
Siliqua lucida Carpenter	Morro Bay, Calif., L.55 mm., Morris Caruthers, 3,1950
Siliqua patula Dixon	Cordova Id.,Alaska, W.74 mm., L. 170 mm.,Walter J. Eyerdam, 6,1950
Siliqua patula alta Broderip and Sowerby	Cordova Id.,Alaska, W. 70 mm., L. 130 mm., Walter J. Eyerdam, 6,1950
Sinum californicum Oldroyd	Newport Bay, Calif., L. 45 mm., W. 24 mm., Morris Caruthers, 3,1950
Solemya panamensis Dall	100 fms., 7 1/2 mi. E. El Segundo,Calif. L.47.3 mm. Mark Rogers, 4,1959
Solen sicarius Gould	Morro Bay,Calif. L. 88 mm., Morris Caruthers, 3,1950
Spisula alaskana Dall	Cordova Id., Alaska, W. 98 mm., L. 136 mm.,Walter J. Eyerdam, 6,1950
Strombus gracilior Sowerby	Cholla Bay,W. Mex.,L. 84 mm., W. 55 mm., S.R. Hall, 6,1959
Tagelus californicus Conrad	Puertocito, Baja Calif.,W. Mex. L. 128 mm. E.P. Chace, 4,1959
Tegula funebrale A. Adams	Bolinas Bay,Calif. L. 45 mm., Geo. P. Kanakoff, 5,1950
Tegula pulligo Martyn	Morro Bay,Calif. L. 35 mm., W. 45 mm.,Morris Caruthers,3, 1950
Tegula regina (Stearns)	Santa Barbara Id.,W. 50 mm., L. 42 mm.,George P. Kanakoff, 5,1950
Terebra pedroana Dall	Newport Bay, Calif., L. 50 mm., Morris Caruthers, 3,1950
Terebra variegata Gray	Cholla Bay, W. Mex., L. 74 mm., W.16.5 mm, S.R. Hall,6,1950
Tethys californica Cooper	Morro Bay,Calif. L. 90 mm., W. 64 mm., Morris Caruthers,3, 1950
Thais biserialis Blainville	Mazatlan,W. Mex., L. 65 mm., Geo. P. Kanakoff, 4,1950
Thais canaliculata compressa Dall	Point Pinos, Calif. L. 40 mm. Morris Caruthers, 3,1950
Thais emarginata Deshayes	Cayucos, Calif. 43.7 mm., E.P. Chace, 2,1950
Thais lamellosa Gmelin	Kuiu Id.,Alaska, 90 mm. Walter J. Eyerdam, 6,1950
Thais lamellosa hormica Dall	Washington Bay,Alaska L. 69 mm. Geo. P. Kanakoff, 5,1950
Tivela stultorum Mawe	Pismo Beach,Calif. W. 176 mm. John Fitch, 5,1950
Trachycardium quadragenarium Conrs	Newport Bay, H .118 mm, W.120 mm. Morris Caruthers, 3,1950
Trimusculus reticulatus(Sowerby)	Cayucos,Calif. W. 25 mm., Morris Caruthers, 3,1950
Turbonilla regina Dall & Bartsch	Dr. off Catalina Id.,Calif. L.16 mm., G.P. Kanakoff,1950

Turritella goniostoma Valienciennes	Guaymas, W. Mex. L. 86 mm., G.P. Kanakoff, 1950
Tylodina fungina Gabb	Laguna Beach,Calif. l. 35 mm. W. 28 mm.,Morris Caruthers 3, 1950
Typhis (*Typhisopsis*) *coronatus* Broderip	Puertocitos, W. Mex.,L.25 mm.., W. 15 mm. S. Ralph Hall, 5,1957
Bulla gouldiana Pilsbry	Morro Bay, Calif. L. 55 mm., Morris Caruthers, 3,1950
Zirfaea pilsbryi Lowe	Seattle,Wash. l.118 mm., W. 90 mm., Walter J. Eyerdam, 3,1950
Zonaria spadicea (Swainson)	2 mi. W. of White's Point,Calif. L. 81 mm., Mr. Ronny Hazelwood, 4,1959

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Museum Demidoff

It was our priviledge to study this work in the Academy of Natural Sciences of Philadelphia. This is (fide Katherine V.W. Palmer, Nautilus 70, p.35) the only printed copy known in the United States. It is an extremely scarce work. As dealers in antiquarian literat--ure we handled one rather poor photostat of parts of the work.

The title page of the work reads, " Museum Demidoff, ou catalogue systematique et Raissonne des curiosities de la nature et de l'Art. Donnees a l'Universite imperiale de Moscou par son Excellence Monsieur Paul de Demidoff." This is another publication of the type of the Museum Boltenianum in that the author's name does not appear and unless otherwise advised one would think that Monsieur Paul de Demidoff was the author. The real author was Gotthelf Fischer[Fischer von Waldheim] (sometimes de Waldheim).

The importance of this work is that the collection is said to be extant and stored in the zoölogical museum of the University of Moscow. The date of the work 1806-1807 makes it one of the pioneer publications.

In connection with our study of the Olividae it may be of interest to mention the species of this family covered in this work. With but a single copy in the United States it is doubtful if many will have the pleasure of examining it.

The following are species of Olividae in the book.

Ancilla coccinea Fischer von Waldheim,1807
This is listed by Fischer as " mihi" with notation " Mers Occiden-tal". Cites Chemnitz 10,fig.1381. We are unable to determine from Chemnitz figure exactly the species Fischer had. However, it would seem quite obvious that this use of the name *Ancilla coccinea* makes a homonym of *Ancilla coccinea* Hedley,1914 (Ref. Min. 183, p.13), and Hedley's species is in need of another name.

Ancilla cinnamonea Lamarck,1801
Cites Lamarck, p.73. This refers to Lamarck, Syst.Anim.,1801. It is interesting to note that this species is usually referred to Lamarck,1811,Ann.Mus. XVI, p.304.

Oliva guttata Fischer von Waldheim,1807

Fischer states " mihi" and cites Adanson's " le girol".
= *Oliva annulata* (Gmelin,1790)

Oliva utriculus -Fischer cites Gmelin,3441
= *Olivancillaria gibbosa* (Born),1778

Oliva elongata Fischer cites Gmelin-" consideree var. l' Utricule" ?? However, from the fact that his reference to *utriculus* places his species with *Olivancillaria gibbosa* (Born), 1778, it may be assumed that he had a variety of this species.

Oliva fusca Fischer von Waldheim,1807
= *Oliva oliva* (Linnaeus).

Oliva hiatula . Fischer cites Gmelin, 3442, *Voluta hiatula.*
= *Olivancillaria* (*Agaronia*) *hiatula* (Gmelin)

Ancilla canalifera Lamarck,1801 Fossil

Oliva ispidula . Cites Gmelin, 3442 = Oliva ispidula (Linnaeus).

Ancilla bullata Fischer von Waldheim,1807. Fischer cites Martini, 2, T 65, 726,727. This species is unknown to us.

Ancilla laevigata Fischer von Waldheim,1807 Cites Mattini, T 2, T.15, 728 and 729. This species is unknown to us.

Oliva plicata Fischer von Waldheim,1807
This species is unknown to us.

Oliva carneola . Fischer cites Gmelin, 3443, n.24
= Oliva carneola (Gmelin),1791

Oliva jaspidea. Fischer cites Gmelin.
= Olivella jaspidea (Gmelin),1791

The work should be studied with greater care.

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ADDITIONS AND CORRECTIONS

Olivancillaria urceus (Röding),1798
Museum Boltenianum,p.37, sp.457 Porphyria
" 457. 48. P. urceus. Der Krug. Gmel. V. Oliva fp.17.a Martini 10. t.147. f. 1367. Kammerer pag.65. tab.4. f. 1,2. 5 St."
The above is the complete Röding reference and description.

Inasmuch as there seems to be no doubt but that Röding's references to Martini is the species we know as O. brasiliana Lamarck, 1811, it seems that we must reluctantly accept this name. The name has priority, and is in use in several of the large museums. The result is that we must alter a number of well established statements in the literature. One of these will be that the genus must be stated as follows.

Olivancillaria d'Orbigny,1839. Type species, Oliva brasiliensis Chemn. = O. brasiliana Lamarck = Porphyria urceus Röding = Olivancillaria urceus (Röding),1798.

Ref. Min.183,p.2

* * * * * * * * * * * * * * * *

Olivancillaria lutaria (Röding),1798 Porphyria
Museum Boltenianum, p.34, sp.421 " 421. 24 P. lutaria. Die geftreckte Dattel. Gmel. Voluta. utriculus fp.19. n. Martini 2. t.50. f.549.50.53. Knorr 3.t.17.f.2.6 St." This is the complete description of Röding.

This is another name that we had hoped to be able to avoid. As with most Röding references one author will assign the name to one species, the next to another. However, the consensus of opinion seems to be to accept lutaria for the group discussed (Min.183,p.4) as Olivancillaria acuminata (Lamarck). Marrat accepted and used the name in Thes. Conch. (figs. 316-18). This will give us the following synonymy. (barthelmyi Ducros,1857- acuminata Lamarck, 1811- anotata Marrat,1871- luteola Lamarck,1811- modesta Reeve,. 1850. A more detailed discussion of a few of these will follow.

O. annotata(Marrat),1871. We placed this species in the synonymy (Min.183,p.4) with a question , the syn. of O. acuminata (Lam.) now in this assignment. Sets in the U.S. National Museum are labelled O. lutaria (Röding). Other institutions have followed. However, Nicles ,1947, in La Coll. de Moll. test. marins de L'I FAN,Dakar, accepts O. annotata as a valid species. Tomlin's notes on the type in the Liverpool Museum gave no indication but that he considered it a valid species. His note follows," Five syntypes. Sierra Leone. Max. 24 mm. x 8 mm. Min. 19 mm x 5 mm (con)

Av. 20.5 mm. x 6.8 mm."

O. cauta(Marrat)1871. Tomlin's notes on the Marrat types in Liverpool are," Three syntypes. West Africa. Orig. of Fig. 327, 31 mm. x 11 mm. Orig. of Fig. 328,26 mm. x 10 mm. Orig. of Fig. 329, 23 mm. x 8 mm. ? juvenile of O. lutaria (Röding) 1798."

The distribution of this species remains a problem. Typical of the sets to be seen in almost all museum collections is one tray in the collection of the American Museum of Natural History. All are labelled O. acuminata (Lamarck) or O. lutaria (Röding). # 24549,Senegal-9870,Senegal-9869,West Africa- 9868,Gaboon-24117 (juv.) Senegal- --9873,Java- 9872,Sumatra- 9862,Java-9874,Java. Another set in the same tray is labelled from Adelaide,S.Australia. Other collections contain a variety of names as well as localities. Such labels as the following in the San Diego Museum, Agaronia acuminata (Lamarck), Accra,Gold Coast, West Africa, ex. M.C.Z. The name Olivancillaria subulata (Lamarck) is frequently used for specimens from West Africa as well as the Indo-Pacific. Such a set is #225619 of the Acad. Nat Sci.Phil. , River Gambia,Africa. All are in our opinion Olivancillaria lutaria (Röding)1798.

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Olivancillaria nana (Lamarck),1811 Ref. Min.183,p.7

It is interesting that so many sets of this West African species are to be found in large collections labelled " West Indies", the identification no doubt taken from Reeve, Conch.Icon. including the locality. Some are labelled O. micans (Sol.) (Dillwyn).

In Min. 183,p.7, we followed Tryon in placing the following species in the synonymy of O. nana.

Olivancillaria zenospira (Duclos),1835 . Monogr. t.3,f.11,12. Observations of specimens in the museums has left us disposed to admit this species. Set # 111600, Acad. Nat. Sci. Phil.,Madagascar. These specimens remind one at first glance of miniature O. gibbosa. Ph. Dautzenberg,1929,Mollusques testaces marins de Madagascar,Paris, Societe D'Editions, discusses the form in some detail. He~~e~~ used O. zenospira as a subspecies of O. nana , or in his usage Var. Dautzenberg's references for the entire complex may be of interest.

1810 Oliva nana Lamarck, Ann. du Museum, XVI, p.311
(Encycl.pl.363,fig.3a,3b)
1822 " " Lamarck, Anim. s. vert. VII, p.438
1850 " " Lamarck; Reeve, Conch.Icon,pl.XXIII,fig.66
Var. zenospira Duclos
1822 " " var. b, Lamarck. Anim. s. vert,VII,p.438
1844 " zenopira Duclos, Illustr.Conch.,p.8,pl.3,fig.11,12
1883 " nana Lam. Tryon, (pars), Manual, V,p.91,pl.36,fig.97
Localité.- Madagascar(Reeve: Conch.Icon.,pl.XXIV,fig.69a,69d; Marrat,Thes.Conch.,IV,p.24,pl.AVIII,fig.291 à 293; Weinkauff, Conch.Cab., 2e edit., p.114,pl.30,fig.5 a 8.

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Olivancillaria nebulosa (Lamarck),1810 Ref. Min.183,p.8

Some problems are offered in this group. We had placed O. intricata Marrat,1871, in the synonymy of O. nebulosa. Tomlin in his notes on the Marrat types, states," intricata . Thes.Conch.1871, sp.140, p.27, figs.344,345. Two syntypes. Bay of Bengal (on label). Orig. of Fig. 345, 27 mm. x 11 mm. = O. ancillaroides Reeve,1850(T)." Ford comments, " The Thes Conch. gives the locality as Africa which Tomlin points out is wrong." Inasmuch as we are disposed to also place O. ancillaroides (Reeve) in the synonymy of O. nebulosa (Lam.) we give Reeve's diagnosis of that species.

" Oliva ancillarioides. (Conch. Icon.,1850,Oliva,Pl.XXI,Sp.55)

(con.)

" The Ancillaria-Like Olive. Shell oblong, thick, spire exserted, acuminated, columellar plaits callously twisted; dull carnelion, unspotted save beneath the sutures, where it is faintly streaked, basal zone paler, columella and interior of the aperture whitish. Hab. Kurrachee, Mouth of the Indus. ...The colour and general aspect of this species is very similar to that which prevails among the Ancillariae. The only specimen known to me , in addition to the one here figured from Mr. Metcalfe's collection, belongs to Mr. Cuming, with the above-named locality attached to it." End Reeve quote.

There is a set in the collection of the American Museum of Natural History, # 48498, labelled , Olivancillaria (Agaronia) intricata Marrat. This set is of this form. The collection of the Acad. of Nat. Sci. of Phil. contains numerous sets typical of this form from Ceylon--# 211089,211184.

Olivancillaria labuanensis (Marrat),1871 Ref. Min.183,p.7
In Min. 183, p. 7, we listed this species as possibly valid. We have since seen a type of the species in the Acad. of Nat Sci. of Phil., # 28913, Liverpool Museum, Marrat Coll. This specimen is certainly a very outstanding color form, but we are now disposed to place it in the synonymy of O. nebulosa (Lamarck). Ford's publication of Tomlin's comments on the types leave the species even more questionable than the ANSP specimen and the figure in Thes Conch. " Two syntypes. Labuan Island, Borneo. Orig. of Fig. 312, 28 mm. x 12 mm. An old label says," Collected and presented by Dr. Collingwood" but no data is given.(W.K.F.)
Conclusion- = Olivancillaria nebulosa (Lamarck),1810.

* * *

Oliva athenia Duclos,1835 Ref.Min.182,p.14 185,p.4
There are many sets in the collection of the U.S. Natl. Museum assigned to Oliva faba Marrat, largely from the Philippines = O. athenia Duclos. However, some of these shells are puzzling because the spire is more exserted, and these might be another species. It is assumed that they constitute the usual variation.

Note on Oliva mucronata Marrat by Tomlin, " mucronata. Thes.Conch. Sp.115,p.22,Figs.274,275. Two syntypes. No locality. Orig. of Fig.274,20 mm. x 11 mm. Orig. of Fig. 275, 16 mm. x 9 mm.= Oliva todosina Duclos,1835. We have followed Dautzenberg, and we think correctly, in assigning mucronata to the synonymy of Oliva athenia Duclos,1835, and have placed Oliva todosina Duclos,1835 in the synonymy of Oliva sidelia Duclos,1835.

Tomlin accepted Oliva faba Marrat as a species, but his note on the Liverpool type was brief," Holotype only. No locality. 12 mm x 8 mm."
A few of the sets in the Acad. Nat Sci.Phil- O. athenia Duclos, #111746, E. Indies, Ford Coll.- #28909 labelled O. faba Marrat. #111599 Fiji Islands- #15858, Viti Islands, labelled O. athenia.

Some of the sets in the museums consider O. athenia a variety of O. carneola. Most of these are in our opinion simply O.carneola of more cylindrical form than usual, and not O. athenia.

* * *

Oliva dactyliola Duclos,1835 Ref. Min.182,p.20,185,p.3
A few of the many specimens observed. Acad Nat Sci Phil, #15851, Marrat Coll., Molluccas. (apex of all are callused but not mucronated)? - Am.Mus.Nat Hist., #9771 E. Indies,- Sets so labelled in Am. Mus. Nat. Hist. #9771, E. Indies(spire mucronated) form almost as Jub. O. Oliva ?- #9731 Molluccas, differ, but same species. 4732, Fine reddish pattern,48423, Singapore-9771 same.

Oliva sidelia Duclos,1835 Ref. Min. 182,p.18-Min.186,p.7
A few sets of unusual interest recently observed.
Am. Mus. Nat Hist- #9832, one shell, 16 mm. white,chocolate longitudinal lines, reddish brown interior-Brickman Coll., No localitty. We are uncertain of this specimen but it is more likely here. #48447. Labelled O. sidelia, a rare yellow, apex mucronated, aperture white, cylindrical in form. We think this is O. carneola . Set #48407 labelled Oliva todosina Duclos, Andaman Islands. Nice set. All have mucronated apex- are ivory with even pattern of zigzag reddish brown. Sets in U.S. Natl. Mus. #91903,Mautitius labelled O. mustellina , but seems to be nearer to this species. #126231,Gloriosa Is.,Indian Ocean. large set.- Sets in Acad. Nat. Hist.Phil., #206961, Dutch New Guinea- # 111577 labelled O. lepida Duclos from Ceylom- #72199 from Ceylon, labelled O.lepida Duclos. Set in Cal. Acad. Sci., #1011, labelled O. sidelia equals lepida Duclos, Ceylon. Callus spire, brown zigzag markings for pattern. Acad. Nat. Sci. Phil.- # 210833, Oliva sidelia var. lepida Duclos 3 mi. S. of Columbo Harbor, West Ceylon. Spires mucronated,aperture interior violaceus. This set included a variety of color patterns including one yellow albino.

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Oliva andamanensis Bridgman,1909 Ref. Min.186,p.4
Porc.Mal.Soc.Lon.,Vol.VIII,1909,p.297. We have placed this species in the synonymy of Oliva carneola (Gmelin), but after observing specimens in museum collections we are uncertain, or disposed to admit the species. A typical set is Acad. Nat. Sci. Phil.,#104785, Andaman Islands. An interesting set, spire mucronated, about 25 mm., brown, fine dotted, lavender interior.

Oliva annulata (Gmelin),1790 Ref. Min. 182,p.9- 185,p.3,p.33
Acad. Nat Sci Phil- Several sets from Palau Islands,- also many fr. Philippines- #14386,Society Islands- #212296 ,Zanzibar.

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Oliva aniomina Duclos,1835 Monog.,pl.8,f.,1,2
Tryon, Man. Conch.,Oliva, vol.V, p.86, pl.32, figs.26,27, describes as follows," Yellowish white,with chestnut -red zigzags and nebulous markings. Length .75- 1.1 inches. Japan. O. rufopicta Weinkauff (fig.27), appears to be the same species." End quote.

This is such a conspicuous form that it is probably an acceptable species. It must be fairly rare becuase very few have been noted. Typical is set # ~~207200,-Acad-Nat-Sci.-Phil.,New-Britain--and set-#164784,-N-ew-Britain,-not-named-in-collection.--~~
11580 labelled O. rufopicta Weinkauff , Japan, John Ford Coll. Shells are somewhat like Oliva bulloui Sowerby,1887 but more slender.

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Oliva buloui Sowerby,1887 Jour.Linn.Soc., Vol.XX,p.395
This is a very conspicuous form,shell of apricot color,body whorl of a pattern of reddish triangular marks, heavier on the posterior half. This is such a remarkable color form that it must be a distinct species. A few of the sets observed are- #48526 in the Am.Mus.of Nat Hist., 6 specimens in this set, a beautiful series. Acad. Nat Sci. Phil.,# 207200, New Britain- #164784, New Britain ,same but not named. Set in the Burch collection, ex.Hugh Fulton, New Britain. It would seem that this species is endemic to New Britain inasmuch as every specimen noted in the many museum lots observed contained a limited number, all from New Britain.

Oliva atalina Duclos,1835 Monog. Oliva, t.10, f.9,10
Thes.Conch. f.442,figs.48-50, as O. caerulea (Röding).
Tryon, Man.Conch., Vol.V, places this species in the synonymy of Oliva episcopalis Lamarck. . The note on Thes.Conch.,is," 210, atalina Duclos (f.442) Although this shell together with the next have the appearances of being varieties of O. episcopalis and O. tricolor, I have not been able to connect them."
O. atalina always has a white aperture. O. episcopalis a purple interior. On this basis, Dautzenberg,(Journ. Conchyl.,v.77,1933,) questions placing atalina under episcopalis and considers the species valid. " Localite-Pinaki."

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Oliva avellana Lamarck,1811 Ann. du Mus., xvi, p.320
Tryon, Manual Conck., Vol. V,p.77, pl.21,fig.90, " White, with short triangular reddish markings, forming two interrupted bands; aperture white within. Length 30-40 mm. New Guinea." End Tryon quote.
Weinkauff,1878 lists," Marr.149,150. Wk. 23,1,2,5,7. Neu-Guinea. NB Der Lamarcksche Type musste neben maura stehen, der haufigure Marrats steht heir recht." End quote.
We have seen but few specimens assigned to this species. Some are very distinct and the species may be separable, and would also seem to be quite scarce.
One set in the American Museum of Natural History, # 9733, New Guinea. Brownish red dots over entire body whorl, about 30 mm., reddish color showing through the edge of the outer lip.

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Oliva broderipi Ducros de St. Germain,1857 Rev. Crit. p.62,t.2, f. 39,a,b.
We had deferred disposal of this species until material had been observed. Tryon, Man. Conch., Vol. V,p.86,pl.33,f.33," Shell rather convex, with short spire; yellowish brown, closely reticulated with chestnut; aperture chocolate brown within. Length 30 mm. Habitat unknown. A doubtful species supposed to differ from O. ispidula in its wider form and more convex sides." End Tryon quote.
Additional references for figures- Marrat,Thes Conch, F. 280- Weinkauff, 21, 1,4
Some of the specimens noted are: Acad.Nat.Sci.Phil. #15141- U.S. Natl. Mus., #109308. This set matches all descriptions being a somewhat more obese form than typical O. ispidula , but otherwise identical. It is simply another of the countless variations of ispidula.
Conclusion- = Oliva ispidula (Linnaeus)1758.

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Oliva bulbosa (Röding),1798 Ref. Min.185,p.3
Some material noted- Acad.Nat.Sci.Phil. #19459, Aden, Red Sea (seem to be typical of the species). #111630 are the types of O. immaculata Vanatta,1915. These shells are merely albino specimens of O. bulbosa. The same color phase is to be seen in other collections labelled Oliva alba Dillwyn . = O. bulbosa (Röding)

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Oliva lecoquiana Ducros,1857 Rev. Crit. p.43, t.2, f.20,a-c
Tryon, Manual Conch.,Vol.V,p.77, pl.21, figs.92,93; pl.33 fig.30, " Shell marked and banded with chocolate colored triangular markings as in O. elegans, the fasciole similarly stained with saffron color; form somewhat more bulbous; interior of aperture violaceus. Length 35 mm. China....The colored aperture is the best distinctive character. O. similis Marrat (fig.92) appears to be a minor form of the species; and O. calosoma Marrat (not Duclos) is a (con.)

still smaller form; O. stellata Duclos (fig.93) may also be referred here." End Tryon quote.

The relationship of this and the following two species has been something of a problem. Regarding Tryon's synonymy, we have placed O. stellata Duclos = O. ispidula Linnaeus. A discussion of the others will follow.

Dautzenberg, 1929, Moll. Test. Marins de Madagascar, listed the species O. lecoquiana Ducros from Ankilibe'.
Weinkauff,1878 27, 9,10 accepted the species- Hab.China.

There are numerous sets in the museum collections labelled O. lecoquiana Ducros. Typical of these may be Acad. Nat. Sci. Phil.,#15105, Viti Ids.- #15854, Fiji Ids. The form is somewhat as in O. elegans , but the aperture is violaceus. May be good species.

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Oliva similis Marrat,1867 Ann.Mag.Nat Hist.,Vol.20,(3rd series) p.215- Thes.Conch.,t.14,f.205,207.

Tomlin's comments on the Marrat shells in the Liverpool Museum follow," Four (not types). Eastern Seas. Max. 35mm. x 16 mm. Min.31 mm. x 14 mm. Av. 32.2 mm x 15 mm. I do not think the two shells numbered 206 and 207 are the originals of these figures. None of the four seem to fit any of the three figures that Marrat gives of similis though they are all that species right enough."
Weinkauff,1878 accepts the species, Wk. 27,7,8,11,Species 10, Ostasian.
We were at first disposed to place the species in the synonymy of Oliva bulbiformis ,but after seeing specimen material we are now disposed to admit the species. The distinctions though are close.

Acad. Nat. Sci. Phil, set #128327 and 15853 Ceylon, and 104786, New Guinea. Am. Mus. Nat Hist.,#48428 Singapore (white or cream color, pattern something as in O. scripta, about 32 mm).All seem to be more cylindrical than O. bulbiformis. All have a violaceus aperture.
Oliva laevis Marrat,1871- Thes.Conch.Vol. IV, p.26,pl.20,figs. 330-331. Tomlin in his notes on the Liverpool Museum types states," Holotype only. Seychelles. 18 mm. x 7 mm. A very young shell of O. similis Marrat. Spelt laevis on page 26, laeve on caption to plate."
Weinkauff,1878,22,1,4,Seychellen- Wehl nur stat. juv. der O. elegans oder tigrina.- Weinkauff species 16."
The confusion here is apparent. We were at first disposed to place O. laevis in the synonymy of Oliva mustellina . Weinkauff thought it to be a juvenile O. elegans or O. tigrina.

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Oliva calosoma Duclos,1835 Monog.Oliva,XVI,figs.1,2
Tryon, Manual Conch., Vol. V,p.76,pl.21,fig.89," Pure white, or with slight indications of three bands composed of occasional triangular brown markings. Length .27 mm. China." End Tryon quote.

Tryon was disposed to accept the species as of Duclos, but to place O. calosoma Marrat,1871(not Duclos) in the synonymy of O. lecoquiana Ducros. Weinkauff,1878, 25,7,8, China- accepted the species of Duclos as figured by Marrat.

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It has been our pleasure to have Dr. Tadashige Habe of Japan for our house guest the past week. The results of our many talks has been the solution of some of our problems in the Japanese fauna. However, please do not assign our errors to Dr. Habe.

We are recognizing four species of Olivella from Japan.

Olivella spreta Gould,1860 Descriptions of new shells collected by the United States North Pacific Exploring Expedition. Proc. Boston Soc. Nat. Hist., vol.7,pp.323-340.
The type is in the United States National Museum,Wash.,D.C. #516
Type locality, Hong Kong.
O. spreta Gould,1860 Otia Conchologica: Descriptions of Shells and Mollusks from 1839 to 1862 by Augustus A. Gould,M.D. of Boston. "T. patvulus,elongato-ovata,livida,strigis,flexuosis longitudinalibus flavidis picta;spira admodum elevata;anfr.4; sutura canaliculata: apertura 2/3 totius longitudinis cito dil--atata;columella plicis eminentibus bifidis rufis munita.Axis 6;diam.3 millim. Inhabits Hong Kong Harbor in 10 fathoms,shelly sand. W.S. Most like O. mutica ,but the pillar lip differs."
In the synonymy of O. spreta Gould we place O. signata Lischke, 1873, Mal. Blatt, p.20
O. spreta Smith,1879, PZS,p.181,pl.xx,fig.55.
O. spreta Gould was figured by Yen, Teng-Chien in " Notes on some unfigured type specimens of Chinese mollusks from the North Pacific Expedition ", Proc. Calif. Acad. Sci.,Ser.4,vol.23, no.38, pp.561-586,pl.s50-51,1952.
Kuroda and Habe, Check List and Bibliography of the Recent Marine Mollusca of Japan. The authors accept O. spreta as a valid species.

Olivella spretoides Yokoyama,1920 Jour.Coll. Sci.Tokyo,Vol.44, p.47 Pleistocene and Recent.
This species was described from the Pleistocene, but has been taken Recent in deep water. There are records from Sagami Bay to Tosa,Japan in 100 to 200 meters or deeper.
The color of the specimens is brown with zigzag streaks. The aperture is brown. The shells are large, approximately 20 mm.

Olivella japonica Pilsbry,1895 " Catalogue of the Marine Mollusks of Japan with descriptions of new species and notes on others collected by Frederick Stearns" by Henry A. Pilsbry. Detroit, 1895. Published by Frederick Stearns. Pl.II,fig.11.
The original description follows," Olivella fortunei (Ad.) Marrat,1871. Thes.Conch., IV, pl.350,f.422,423. Marrat's figures but poorly represent the magnificent specimens procured by Mr. Stearns. The large dark form shown in the figure may be called var. japonica Stearns."
We consider the Olivella japonica Pilsbry to be a valid and separable species, and not to be confused with the species figur--ed by Marrat as O. fortunei (Adams) Marrat,1871,which we place in the synonymy of Olivella fulgurata Adams & Reeve,1848 .See note under this species. Some of the sets examined- #32873,Stanford University, from Sagami,Japan (labelled O. fortunei japonica Stearns)- Acad.Nat.Sci.Phil.,#70965, Japan,F.Stearns Coll.- also #50901. Several sets in the Burch collection. Some material noted in museum collections erroneously labelled Olivella mandarina (Duclos). which is another species.

Olivella lepta(Duclos)1835 Hist. Nat. Coq.,pl.1,figs.7,8- Chenu, Ill. Conch.,p.5, pl.1,figs.7,8.
Duclos' original description in French follows," Olive lepte.Tres -jolie espece tres-effilee,a'spire longue et pointue, ayant un petit filet qui tourne dans le haut de tous ses tours; le dernier charge' de lignes flexueuses d'un jaune tirant sur le rouge; bouche blanche;columelle portant a' sa base deux plis torsidiformes et colore's de rose. Je n'ai de cette espe'ce, qui est fort rare,que trois exemplaires. Longeur, 8 millemetres. Habite les mers de la Chine." End Duclos quote.

Tryon, Manual Conch., Vol. V, p.69, Pl.16,figs.4-11;pl.17,fig. 52. " Narrow, with elongated spire; a narrow chestnut line or row of spots beneath the suture, a more distinct interrupted line at the margin of the fasciole, and the intermediate space with zigzag longitudinal lines, base of the shell chestnut. Length 8 mill. China Sea; Japan;Philippines.

With this species I include O. consobrina Lischke (unfigured), O. fabula Marrat, 5,6-O.lanceolata Reeve(figs.7,8)-O.pulicaria Marrat(fig.9), O. exilis Marrat (fig.10), O. fulgurata Adams and Reeve(fig.11), and O. pellucida Rve.(fig.52)." End Tryon quote.

It is our opinion that this species has been very generally misidentified , and no doubt in large part from following Marrat in Thes. Conch. Weinkauff,1878, states the matter as we think incorrectly as follows," lepta Duclos 1,7,8. Marr.447. Wk. 39,15. St. adult = O. pulla Marr. 411 ,var. juv. = O. pellucida Rve. 85,a,b, Marr. 430. Westkuste von Sud-und Central Amerika ? Antillen,China." End Weinkauff quote.

A study of Duclos fine figures and description as quoted above have convinced us that O. lepta is at least the same species commonly labelled O. fulgurata Adams and Reeve. Duclos gave his locality as " mers de la Chine" which would include Japan, and we see no reason to question his locality. The species we place in the synonymy will be discussed as follows:

Olivella fulgurata Adams and Reeve,1848 Voy. of the Samarang, p.31,t.10,f.12.
Smith, Ann.Mag.,1875,p.426 Pilsbry,1895, notes in Cat. Marine Molls. Coll. by Frederick Stearns, Detroit,1895, Pl. II, fig.11.
It would seem that perhaps another reason for the fact that this name has been generally given to the species from Japan is that Pilsbry failed to mention O. lepta Duclos, and Pilsbry's work has been extensively followed on this fauna. Pilsbry gave some localities as follows, Yamada Harb. 7 fath., sand (St. John); Tokyo Harbor;Kamakura (Stearns);Nagasaki (Lischke); N. coast of Tango (Gaines).

Kuroda and Habe in Check List and Bibliography,1952, accepted O. fulgurata Adams and Reeve,1848, but failed to notice O. lepta Duclos,1835.
This is apparently a very common species from Japan. There are many large sets in the Burch collection as well as in the collec--tions of all large museums.

Dr. Tadashige Habe made a very surprising statement regarding this species. It lacks an operculum which is usually thought a character to remove a species from Olivella to Oliva or elsewhere. However, this species has the radula of Olivella. The other three species discussed on page 9 from Japan do have an operculum.

There are some sets in museum collections such as for example #11776, Acad.Nat.Sci.Phil. labelled Olivella lepta fulgurata Adams and Reeve. This may well be a sound diagnosis.

Olivella fortunei Marrat,1871 Thes. Conch.,Sp. 191, p.36,Figs. 422,423.
This species was credited to Adams in Thes.Conch. by Marrat, but as pointed out by Tomlin and others, it was never described by Adams. Therefore, the only correct reference is to Marrat.
Tomlin's notes on the types in the Liverpool Museum are,"Six syntypes. China. Max. 10 mm. x 8 mm. Min. 9 mm. x 3.5 mm. Ave. 9.5 mm. x 3.8 mm. ." End quote.
Weinkauff,1878 listed and figured," A. Adams, Marrat 422,423-Wk. 39,20,21. China.", ~~Tomlin~~ Tryon, Man. Conch.,Vol. V,p.69, pl.16, figs.12-15.
There are many sets of specimens in the U.S. Natl. Mus.collection, Acad. Nat Sci.Phil. , and others labelled O. fortunei with most giving Adams as author, others properly crediting Marrat. However, a revision of these cabinets will not be a simple matter of changing labels to O. lepta (Duclos) because there are sets in with them bearing the same label that are in our opinion Olivella spreta Gould as well as others of Olivella japonica Pilsbry.
Conclusion:- Olivella fortunei (Adams) Marrat,1871 and Olivella fulgurata Adams and Reeve,1848 = Olivella lepta lepta(Duclos).

Olivella consobrina Lischke,1871 Mal. Bl.,p.41- Japanische Meeres Conchylien, Vol. 3,p.62,pl.5
Weinkauff,1878, " Wk. 39,17,18 = O. fabula Marr.420,421.Japan."
There are numerous sets in the collection of the U.S. Natl. Mus. and other large collections assigned to this species. Most of them are O. lepta (Duclos) , but others are included with status uncertain and requiring more study. For an example, set #130951, U.S. Natl. Mus. , Sandwich Islands, J.P. Mitchell. These specimens were assigned to O. consobrina , but are of another species.
Conclusion:- O. consobrina Lischke = O. lepta (Duclos),1835.

Olivella fabula Marrat,1870 Thes. Conch., p.36,Sp. 190,Figs. 420,421.
Tomlin,in notes on the Marrat types in Liverpool stated," Six syntypes. No locality.Max. 10 mm. x 4 mm. Min.7.5 mm. x 2.5 mm Av. 8.5 mm. x 3 mm. = O. lepta Duclos,1835 (T)." End quote.
The brief statement in Thes. Conch. follows," The columellar callus is formed into a thickened ridge continued the whole length a peculiarity which I have not observed in any other species."
There are numerous sets in collections so labelled. The Burch collection contains a number of them. The late W.F. Webb assigned many of his specimens to O. fabula, and these had a wide distribution. There are numerous sets in all large collections. A few may be mentioned, -U.S. Natl. Mus., Set #175650,Hirado Hizen, Japan-226558,Hakodate, Japan-226567,Nagasaki-#226555 Yenoshima.
Conclusion:- Olivella fabula Marrat,1870 = Olivella lepta(Duclos)

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Olivella lanceolata (Reeve,)1850 Conch.Icon.,Pl.30,Figs.95,a,b
Reeve's description follows," The Lanceolate Olive. Shell fusiformly oblong, rather solid, spire much exserted, acuminated, columella arched, callously plicated at the base,plaits fine,numerous;whitish, sparingly very delicately lineated and spotted in rows with brown, the dots being larger beneath the sutures. Hab. Catanaun, Island of Luzon (in sandy mud at eight fathoms), and Loay, Island of Bohol,Philippines (at the depth of sixty fathoms); Cuming. A delicately marked narrow accuminated shell, of rather solid growth." End Reeve quote.

(con.)

Weinkauff,1878, accepted the species," 27. lanceolata, Rb. 95,a,b Marrat 384- Wk. 37,7,8 Luzon und Bohol,Philippinen." End quote. Statement in Thes. Conch. re (f.384)," Possibly a small variety of O. gracilis." We cannot agree with this conclusion.

There are numerous sets in the museum collections that might be assigned to this form. Tryon, Man. Conch. placed it in the synonymy of O. lepta (Duclos), but the numerous plaits on the columella argues against this conclusion. There is a set in the San Diego Museum from Luzon,Philippines that seems to fit the description. Set #9973, Am. Mus. Nat. Hist. may be this species. They are not O. lepta (Duclos) in our opinion. Shells are slender, white, 11 mm. x 4 mm. Callus does not run above the suture, labelled from the Philippines.

Conclusion:- We accept the species tentatively.

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Olivella mandarina (Duclos),1835 Monog. Oliva,t,6,f.1,2
Tryon, Man. Conch., Vol. V,Pl.14,figs.56,57," Spire rather elevated, inner lip with a strong callous deposit above,extending upwards to the spire; yellowish white,painted with zigzag longitudinal brown stripes,sometimes spotted or fasciculated below the suture. Length, 10 mill. China. I am not acquainted with this species; it appears to be nearly allied to the preceding (O. var. nitidula = O. minuta Link), but of more solid build. The locality has not been confirmed, and the more recent monographs have simply copied Duclos. O. tunguina Duclos (fig.57) is evidently a synonym, but Marrat has erroneously identified with it a specimen of the typical O. mutica." End Tryon quote.

Weinkauff,1878 accepts the species and lists Marrat,407, Wk.38,14 China. also placed O. tunguina in synonymy.

We have noted many sets assigned to this species erroneously in our opinion. The Burch collection contained several sets so named that are of the species discussed above, Olivella japonica Pilsbry. The description and Duclos' figures show a shell with a heavy callus to above the suture, and this species may include others from this province showing this character. There are such sets as # 9972, American Museum Nat. Hist.,Philippines, Jay Coll., Philippines. These shells have a heavy callus from the columella to above the suture. Size 9 mm. x 3 1/2 mm. White line around base, dorsal side. They are labelled Olivella lepta (Duclos) , but in our opinion cannot possibly be this species.

Conclusion:- We are disposed to aceept the species subject to further investigation.

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Olivella anazora (Duclos),1835 Ref. Min.187,p.3-5
In our discussion of this species we followed Tryon in placing O.compta Marrat in the synonymy. Tomlin in his study of the Marrat types states,Holotype and six paratypes. California. Holotype 7 mm. x 2.5 mm. Type lot of O. compta Marrat, the actual type in tube = O. volutelloides Marrat." This is scarcely clarified by Tomlin's notes on O. volutelloides Marrat, " Holotype ohly. West Indies. 7.5 mm. x 3.5 mm. = O. compta Marrat." We had placed O. volutelloides (Min.189,p.7) in the synonymy of O. rosolina (Duclos). We are disposed to leave our original synonymy unchanged.
Tomlin's comment on O. pulla Marrat ," Holotype only. South America. 18 mm. x 7 mm. = O. anazora Duclos,1835." Tryon, Man.Conch. also referred to O. anazora. Weinkauff,1878 thought O. pulla = O. lepta (Duclos). Conclusions unchanged. O. pulla Marrat = O. anazora (Duclos),1835

The Olives of George Perry

Perry, G.- Conchology, or the Natural History of Shells, 1811

A careful study of the rather fantastic paintings of Perry in an effort to determine, if possible, just what the author thought to be species of the Olividae, has resulted in the following notes.

Plate 31, Fig. 1. Ancilla alba. This is obviously not of this family, but is some species of Bullia.
Fig.2. Ancilla fasciata. This is certainly not of the Olividae.
Fig.3. Ancilla pallida. This is a species of Babylonia.
Fig.4. Ancilla fulgens. Good for Perry. This does seem to be some species of Ancilla, but the only one on the entire page.
Fig.5. Ancilla maculata. This is clearly some fahciful species of the family Cassidae.
Fig.6. Ancilla caerulea. Some form of Nassarius.
Fig.7. Ancilla lineata. " " "

Plate 41, Fig.1. Oliva fusca. This could be anything conceived by Alice in Wonderland. Bright red. Certainly no living species.
Fig.2. Oliva porphyracea. This resembles nothing closely but let us call it Oliva miniacea (Röding) , and get it in the synonymy before some author recognizes it as a new genus.
Fig.3. Oliva leveriana. Might be Oliva porphyria(Linne')
Fig.4. Oliva zigzag. It is just possible that the artist had seen some form of Oliva sanguinolenta Lamarck but the painting is definitely on the impressionistic side.
Fig.5. Oliva subviridis. This is a startling affair of bright green, lavender trim to the lip, golden base. If anyone recognizes this it will be just after some remark such as " Let's have another."

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This dodging priority of names is something amusing. Perhaps we should select one of Perry's ' dreamlike' creations. We should then be safe back to 1811.

After our paper in Min. 190, pp.2-3 regarding Oliva cylindrica Marrat, 1867, we discover that G.B. Sowerby used the name in 1850, Quart.Journ.Geology., vi, p.45. The name was used for a fossil species of Oliva.

As we understand the present rules of nomenclature, it is not required that we determine whether or not one of the ancients may have had this species, if the name has not been in use. Therefore, we feel justified in this case for accepting Ford's name. Ford seemed to be the first to observe the characters of the species, and it seems justice to give him full credit. It is certain that Ford's cryptospira is the species we wish to name in any event. Therefore, we now have:-

Oliva cryptospira Ford, 1891 Nautilus, vol.4, pp.135-136
In synonymy,
Oliva ornata Marrat, 1867 (non Röding, 1798)
Oliva cylindrica Marrat, 1867 (non G.B. Sowerby, 1850).

Ref. Min. 181, p.20
Min.190, pp.2-3

Oliva caribaeensis Dall and Simpson,1901 Ref.Min.184,p.13
The confusion of this species with Oliva scripta Lamarck was discussed. Perhaps some of this was due to Marrat's work, although it must be admitted that the two species have characters in common. We noted in the Acad. N at. Sci. Phil. , set #15937, labelled O. scripta , West Indies, being one of the Marrat sets from the Liverpool Museum. We noted the same assignment in many other sets. Am. Mus. Nat. Hist. contains some specimens, such as #9656,Curacao which are of the above species. There are ample sets in the same collections of genuine Oliva scripta Lamarck. These are labelled from China etc. Indo-Pacific. It is odd though that some of the museum sets of the species we consider Oliva caribaeensis should bear the label Oliva carolinensis Conrad,1863 . To be true this name might have priority, but all references we have seen indicate that Conrad's species is an obese or large shell = O. sayana Rav.

Oliva duclosi Reeve,1850 Ref. Min.182:16 185:4 186:7
Our preliminary diagnosis placed Oliva grata Marrat,1871 in the synonymy of Oliva mustellina Lamarck.However, we are disposed to alter this. Tomlin's study of the Liverpool types is as follows, " grata. Thes.Conch.,1871, Sp.221,p.41,Fig.470. Holotype only. No locality.24 mm. x 11 mm. = O. stainforthii Reeve." We had also accepted the diagnosis of Ducros de St. Germain who had studied the type of O. stainforthii that it is but a squatty form of var. lentiginosa of duclosi Reeve. However, Figs. 66,67 in Thes.Conch. indicate a very bulbous shell for O. stainforthii , more so than Reeve's original figures.It is possible that O. stainforthii may be a recognizable species. Weinkauff,1878, 32,8,9, Species 20, figured and accepted O. grata Marrat.
Some of the material noted recently of this species are- Am. Mus. Nat.Hist., #9677 and 24122 ,Philippines. Typical specimens. Large set.Others #45257 and 9576 are the same but labelled O.duclosiana Jay. San Diego Museum , #34320, Mauritius. Nice set of small shells. All characters O.K. Set #10303,Indian Ocean is labelled Oliva jaspidea Duclos which = duclosi. Typical shells but quite dark. Calif. Acad. Sci. #1000 is O. duclosi. #1001 and 1002 are same but of lighter color. Acad. Nat. Sci. Phil, #15140, Fiji. Typical dark grayish green shells, yellow aperture, no bars in lip. Set #18314, U.S. Natl. Mus. , Fiji, large set, typical.

Oliva funebralis Lamarck,1811 Ref. Minutes 182,p.23
It would seem that Tomlin considered O. leucostoma (Duclosto be separable from O. funebralis. In his comments on Marrat's types of Oliva clara Marrat , he states, " Two syntypes. No locality. Orig. of Fig. 199, 28 mm. x 13 mm. Orig. of Fig.200, 27 mm. x 12 mm. They appear to be rather young specimens of O. leucostoma Duclos, 1835."

Oliva propinqua Marrat,1870 Thes. Conch.,t.11,f.141.142
Tomlin's study of the Liverpool types, " Two syntypes. Ceylon and Singapore (ex. Thes. Conch.). Orig. of Fig. 141 43mm. x 19 mm.,of Fig. 142, 40 mm. x 18 mm. It comes very near to O. leucostoma Duclos,1835."

Oliva lutea Marrat,1871 Thes.Conch.,p.40, t.24,f.444,445
We placed this species in the synonymy of O. funebralis Lamarck with a ?. We have been unable to determine whether or not this species is valid and are disposed to leave it in the synonymy. Tomlin's comments on the types add little light, " Two syntypes. No locality. Orig. of Fig. 444, 28 mm. x 13 mm. Orig. of Fig.445, 28 mm. x 13 mm."

(con.)

Oliva funebralis Lamarck- continued
Oliva inornata Marrat,1870 Thes. Conch., p.13, t.11, f.155
We placed O. inornata in the synonymy of O. funebralis. Tomlin's comments on the Liverpool type indicated that he accepted the species as valid. Noted as follows," Holotype only. Fiji Islands. 31 mm. x 14 mm.

We have been disposed to consider Oliva leucostoma Duclos to be inseparable from Oliva funebralis Lamarck. Weinkauff,1878, thought that it is a valid variety. His diagnosis in brief follows," O. funebralis Lamarck. Kust.1,9,10- Reeve,7,10(O. maura pars.) Marrat 146-148 (O. labradorensis) - Wk. 9,4,7,8,10. Var. leucostoma Duclos 29,9-20, Marr. 143-145 = O. propinqua Marr.,141-142. Ceylon,Java, Philippinen,Singapore,Moluken. Weinkauff Species 18." End Quote. There are sets in most of the museum collections labelled O. leucostoma -- Acad.Nat. Sci.Phil.,#15102, Molluccas, Marrat Collection. #159781,Mindoro,Philippines ex. Pedro de Mesa. Same as above = O. funebralis. Numerous other sets in collections seem to have O. funebralis confused with forms of Oliva oliva (Linnaeus). Numerous other sets labelled Oliva leucostoma Duclos seem to be Oliva elegans Lamarck.

Oliva elegans Lamarck,1811 Ref. Min. 182, p. 19
Oliva keeni Marrat,1870 Thes.Conch.Sp.78, p.16,Fig.164.
We placed this species in our preliminary arrangement in the synonymy of Oliva sanguinolenta Lamarck, but have desided to accept the diagnosis of Tomlin who studied the type as follows, " Holotype only. Moluccas (on label). 38 mm. x 19 mm.= O. elegans Lamarck (T.) . The Thes. Conch. gives the locality as Fiji Islands(W.K.F.). Several authorities have accepted O. keeni Marrat. Weinkauff,1878 26,9,10, Species 27 thought it valid.
Oliva infrenata Marrat,1871. Thes.Conch.,t,12,f.161.
We placed O. infrenata in the synonymy of O. elegans , and Tomlin's comment supports this assignment, " Holotype only. No locality. 42 mm. x 23 mm. = O. elegans Lamarck,1811."

This is another generally misunderstood species with sets in seemingly all large collections but assigned to numerous other species.

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Oliva scitula Marrat,1870 Thes. Conch.,Sp.38,p.9,Figs.76,77
The status of this species has been puzzling to us. Authors have been far from agreement. Some have placed it in the synonymy of O. mustellina Lam., others have placed it under O. bulbosa (Röding), and others have accepted it as valid. Marrat's figures in Thes.Conch. indicate that it should be a valid species. The note in Sowerby, Thes. Conch. states, " Like bulbosa in form but without the tubercle on the anterior callus."
Macnae and Kalk,1958, Nat. Hist.Inhaca Is.,p.128, list it as a species from Delagoa Bay, S. Africa. K.H. Barnard listed it from So. Africa. Weinkauff,1878 accepted it and figured it, Wk. 32,5,6, with note " Wohl St. juv. einer Var. der Verigen. Weinkauff Species 8. Tomlin's note on the type is of little help," Holotype only. No locality. 15 mm. x 11 mm."
Conclusion- The species should be tentatively accepted.

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Oliva flaveola Duclos,1835 Monog. Pl.6,figs.17-20
In our preliminary survey we placed this name in the synonymy of Oliva ~~mustellina~~ ispidula (Linnaeus,1758). There seem to be few sets assigned to this species, but they are of interest. One in Am Mus Nat Hist.#48405,Indian Ocean, 6 specimens. All are yellow orange,no pattern,cylundrical,low spired, or low for ispidula.

We are indebted to a new publication recently received for the solution of a number of problems connected with the fauna of South Africa. The work is, Barnard, K.H.- Contributions to the knowledge of South African Marine Mollusca- Part II. Gastropoda: Prosobranchiata: Rhachiglossa. Annals of the South African Museum,Vol. XLV,June,1959.

Ancilla osculata Sowerby,1900 Pro. Mal. Soc. 4:3,pl.1,fig.6
Ref. Minutes 183, p.18. There are sets so labelled in the collection of the U.S. Natl. Mus. ex. Turton, Port Alfred.
This is not in the Olividae but a species of Bullia, fide Barnard.

Ancilla obesa Sowerby,1859 Thes.Conch. iii,p.65,pl.213,figs.44-45
Ref. Minutes 183,p.18
1932 Turton. Mar. Sh. Port Alfred, p.32
Not obesa von Martens 1903 = reevei Smith.
Barnard discusses the species in detail with Fig. 16 (f). " Spire without any covering of callus,parietal callus thin,profile of sides straight or very slightly concave, apex pointed.Aperture about twice as long as spire. Postnatal whorls 4. Basal groove meeting columella slightly above middle. 18 x 9.5 mm. Turton:21 mm. long. ..Fawn, a spiral band of alternating orange-brown and white spots on upper part of whorls, below this on body whorl an irregular series of spots, and another series below the basal groove;between these, two series orange-brown axial zigzags forming a reticulate pattern, lower part of base brown; reflected columella white." End Barnard quote.

There are numerous sets of this species in the U.S. Natl. Mus., Acad, of Nat. Sci. of Phil., and Am. Mus of Nat. Hist.

Ancilla reevei Smith,1904 Jour.Malac.,vol.xi,p.29,pl.2,fig.11
Ref. Minutes 183, p.19
1903 Von Martens. D. Tiefsee Exp., vii, p.37 (Ancillaria obesa non. Sow.)
1925. Thiele. D. Tiefsee Exp. xvii, p.190,pl.33(21),fig.15, and text fig.7 (radula) (callifera)
1932 Turton. Mar. Sh. Pt. Alfred, p.31, and var. bipartita,p.31, pl.6,no.233.
Barnard, p.62, Fig.16(e), describes this species as follows," Spire covered with thick callus, especially above aperture,right profile convex, left profile convex above,indented below (in the suture), apex pointed.Aperture about twice as long as the spire.Postnatal whorls 4(Smith: ?5). Basal groove meeting columella about in middle. 22 x 10-11 mm. Turton: 24 mm. long. Operculum ? Fawn, spire mostly brown, a brown band between the sutural indent and lower margin of callus with white spots on its lower border, a series of brown spots above the basal groove, extending upwards as zigzags or undulate brown axial lines, often joining to form a reticulate pattern; lower part of base with 2 brown bands and a white one between them; parietal callus and reflected portion of columella white... The indent on the left side of the spire is characteristic, and together with the spire-callus distinguishes this species from obesa; the two species are very similarly coloured and pattern alone is not always decisive in separating them. The spire callus is not an adult character, but occurs on younger examples smaller than the largest ones of obesa; can it possibly be a sexual character ?
Turton's bipartita lacks the indent on left profile of the spire, but the specimen appears to be water worn." End Barnard quote.

Ancilla obtusa (Swainson),1825 Q. J. Sci., xviii,p.282(Ancillaria)
Ref. Minutes 183, p.18
1848. Adams and Reeve. Voy. Samarang. Moll.,p.31,pl.13,fig.6
1859. Sowerby. Thes.Conch.,iii,p.62,pl.211,figs.15,16
1886. Watson. Challenger Rep., xv, p.229
1913. Bullen Newton. Rec. Albany Mus.,ii,pl.24,figs.3,4(Baryspira sp.)
1932. Turton. Mar. Sh. Pt. Alfred, p.31

Barnard,p.64,Figs. 15(h), 16(i), " Spire completely enveloped in callus. Shell ovate with shortly pointed apex, or obovate with bluntly rounded apex. Aperture about 1 1/2 times spire.Postnatal whorls ? (conccealed in callus). Basal groove meeting columella at posterior third.Callus spreading laterally to left at top of aperture in a broad rounded lobe which is continued on to spire, and which is visible when shell is viewed from back (more so in adult than in jiv.). 47 x 28 mm. Turton: 54 mm. long. Operculum oval, slightly concave,nucleus subapical, 15 x 8 mm. in 39 mm. shell with aperture 29 mm. Fawn or buff, a warm brown band on the base;the same colour shows through the callus on spire;callus on body whorl brown,parietal callus above aperture white; often arcuate or flame-like streaks on the brown body whorl band;middle band margined above and below with white and usually showing the growth lines. Operculum yellowish-horny or amber. Animal (Mossel Bay, U.C.T.) dirty white with rather coarse sepia brown speckling. Radula with 95-100 rows: middle cusp of central plate rather broad, smaller than the other two, outer margins of the latter crenulate. Remarks. Two young specimens 14 x 7 and 17 x 10 mm. are ovate in shape with pointed apex, with slightly convex profiles subtending an angle a little less than 90°. Larger specimens (21 mm. upwards) may retain the pointed apex (largest 42 mm.), or show various stages of its envelopment in callus, the final stage being a blunt and broadly rounded apex. Four juveniles 2.5-4 mm., and one 6 mm. long (Still Bay,Muir Coll.) may be this species,but no connecting links between the 0 and 14 mm. specimens are available. The smallest is 2.5 x 1.3 mm. 1 1/2 whorls. The 6 mm. specimen, though slightly worn, shows the characteristic shape of the callus.Juveniles of 7 mm. and upwards of fasciata-albozonata (a species common at Still Bay) have a narrower apex, and the callus does not expand laterally in a rounded lobe." End Barnard quote.

Ancilla optima Sowerby,1897 Append. Mar. Sh. S. Afr.,p.7,pl.6, fig.31
1892. Sowerby. Mar. Sh. S. Afr., p.16 (australis non Sow. 1830)

Bammard,p.65,Fig.16(j),describes as follows," Shell ovate,spire not completely enveloped in callus, apex pointed, both profiles nearly straight. Aperture 1 1/2 - 1 2/3 times spire. Postnatal whorls ? Body whorl gently shouldered, on upper portion with growth lines forming low arcuate,obliquely protractivelirae. Basal groove meeting columella at about posterior quarter. Parietal callus expanding laterally,but not in a broad rounded lobe, and not visible from back, scarcely reaching apex. 53 x 27 mm. Operculum oval, slightly concave, nucleus subapical, 17 x 9 mm. in 37 mm. shell with aperture 21 mm. Fawn or buff; upper part of body whorl,spire, and base chestnut-brown, the upper brown band sharply defined from the pale middle band (which includes the basal groove), but becoming paler toward the (concealed) suture, the arcuate lirae paler than the ground colour. ..Remarks: The arcuate lirae growth-lines are distinctive. " End Barnard quote.

Ancilla contusa Reeve,1864 Conch. Icon.,pl.9,fig.31
Ref. Minutes 183,p.14
1897. Sowerby. Append.Mar.Sh.S. Afr.,p.7,pl.6mfig.23 (decipiens)
1903. id. Mar. Invest. S. Afr.,ii,p.228,pl.3,fig.3
1915. Bartsch. Bull. U.S. Nat. Mus.,91,p.34 (decipiens)

Barnard, p.66,Figs.15(i), 16(b), " Shell ovate, apex pointed,spire completely (or nearly so) enveloped in callus, profiles nearly straight or slightly convex, subtending an angle of o.55°-60°. Aperture a little longer than (up to 1 1/4 times) spire.Postnatal whorls ? Basal groove meeting columella nearly at top of aperture. Callus expanding slightly at suture of body whorl (cf. optima) and continued on to spire. 52 x 25 mm.
Operculum oval, slightly concave, nucleus subapical, 11 x 5.5 mm. in 25 mm. shell with aperture 14 mm.
Cream or pale buff, spire usually white, but a faint brown sutural band sometimes shows through the callus; upper brown band usually well marked, especially its lower edge (where callus ends); a chestnut-brown band on base;on middle of body whorl a series of spiral brown bands or lines, varying in number and intensity, sometimes very indistinct. ...Remarks. A. decipiens is the beach worn form of contusa tinged with pink or violaceus, as are several other South African beach-weathered shells. Some specimens,especially when the spiral brown bands are indistinct or bleached out, may be difficult to separate from optima, but the arcuate linae of the latter are usually distinctive." End Barnard quote.

Ancilla bullioides Reeve,1864 Conch. Icon.,pl.10,fig.37,a,b
Ref. Minutes 183,p.12
Barnard,p.66,Figs.15(b),16(a), "
1886 Watson. Challenger Rept.,xv,p.229 (montrouzieri), non.Souv.)
1903 Sowerby.Mar. Invest. S. Afr.ii,p.228 (bulloides [sic]
? Von Martens. D. Tiefsee Exp., vii, p/38(dimidiata, non.Sow.part Sta. 113)
1915. Bartsch. Bull. U.S. Nat. Mus. 91,p.35 (bulloides[sic]
1925/ Thiele. D. Tiefsee Exp.,xvii, p.191,pl.33(21),fig.19 (cf. montrouzieri)
? 1932 Turton. Mar.Sh.Pt. Alfred, p.32 (bulloides [sic].

Barnard discusses this species as follows," Bullia-like, the greatest width anteerior to (below) middle of length. Ovate, spire high.Aperture a little longer than spire,expanded in lower half. Postnatal whorls ? Basal groove meeting columella nearly at top of aperture. Callus expanding laterally over the suture,extending to and covering the apex (the actual point of the apex is only thinly covered),partly visible in back view. 40 x 17 mm.;smallest example seen 14.5 mm. long. Operculum slightly concave, oval, narrowing above,inner margin sinuous,nucleus subapical, 17 x 7 mm. in 40 mm. shell with aperture 20 mm. ... Creamy white, spire pale pinkish orange or buff, a spiral band of the same colour on base. Operculum yellowish -horny or amber...Remarks. Watson had one specimen and was unable to find any outstanding differences between it and the New Caledonian montrouzieri. Thiele also compared some specimens with the latter species.Nevertheless the two species are not likely to be synonymous. It is even more unlikely that this deep water Cape species should be ' common'(Turton) on the beach at Port Alfred. ..." End Barnard quote. Barhard discusses in some detail the effect that may be noted from occupation of shells by the Hermit crab, and the shells being covered with Epizoanthus. Such a shell is figured, Fig. 17. It is suggested that some of the confusion in the species has been caused by such specimens.

Ancilla errorum Tomlin,1921 J. Conch.,xvi,p.216,pl.8,fig.2
1903. Sowerby.Mar. Invest. S. Afr., ii,p.229 (angustata, non. Sow.)
? 1903 Von Martens. D. Tiefsee Exp.,vii, p.38 (dimidiata, non.Sow. part: Sta.114)
1906. Smith. Ann.Natal Mus., i,p.28 (Marginella angustata)

Barnard, p.68,Figs.15(j),16(d), discusses as follows," Shell ovate greatest width at middle length. Spire moderately high,enveloped in callus.Aperture a little longer than spire.Postnatal whorls ? Basal groove meeting columella at upper quarter of aperture.Callus expanding laterally and continued almost to apex,not visible in back view. 15 x 7 mm. Operculum oval,slightly concave,nucleus subapical, 6.5 x 2 mm. in shell 14 mm. with aperture 8 mm. Pale buff or fawn, a brown sutural band, and another band on base. Operculum yellowish-amber. ...Remarks: Smith stated that Sowerby inadvertantly recorded this species as an Ancilla instead of a Marginella. The statement, however,is incorrect and should be ignored, because the specimens recorded by Sowerby and returned by him are in fact Ancilla. The same specimens were later seen by Tomlin, who also saw the Natal specimen recorded above. .." End Barnard quote.

Ancilla hasta von Martens,1902 SB . Ges. naturf.Fr.Berlin,p.241
1903. id. D. Tiefsee Exp. vii,p.37,pl.3,fig.13
? 1903 id. ibid. p.38 (dimidiata, non Sow.,part,:Sta.104)
? 1925 Thiele, ibid. ,xvii, p.191,pl.33(21),fig.18 (bulloides, non Rve.)

Barnard, p.69,Fig.16(c), " Shell fusiform, greatest width at middle length, spire high, apex pointed. Aperture about 1 1/2 times spire.Postnatal whorls 7 (von Martens). Basal groove meeting columella at upper third of aperture. Callus expanding on body whorl suture,extending to but not covering the preseding suture, not visible in back view. 25 x 10 mm. Three other specimens 16-19 mm. long. 30 x 11 mm. (von Martens). ' Pale rosy-fulvous,white towards apex' (von Martens). Creamy white,callus and sutures slightly darker buff. 35° 10' S. 23° 2' E.,500 metres (von Martens 65-73 miles off Cape St. Blaize, 85-90, and 125 fathoms (So. Afr. Mus. P.F. Coll.) Remarks. Von Martens does not mention the shape and extent of the callus. The Pieter Faure localities are near to that of the Valdivia, and the four dead specimens taken by the former vessel are undoubtedly referable to hasta. The Valdivia specimens from Sta. 104. 35° 26' E.,155 metres, recorded by von Martens as dimidiata may possibly be hasta. Thiele's figure 18 is much more like a hasta than a bulliodes. " End Barnard quote.

Ancilla fasciata Reeve,1864 Conch. Icon.,pl.11,fig.44,a,b
Ref. Min.183,p.15
1892. Sowerby. Mar. Sh. S. Afr., p.16 (cinnamonea, non Lam.)
1904. Smith. J. Malac., xi,p.29,pl.2,fig.9 (albozonata)
1925. Thiele. D. Tiefsee Exp., xvii, pp.190,191,pl.33(21),fig.17 (agulhasensis)
1932. Turton. Mar.Sh. Pt. Alfred, p.32,pl.6,no.238(pattern var.) and p. 32 (albozonata)

Barnard, p.70,Fig.15(d-g), 16(h)," Aperture about twice the spire. Basal groove meeting columella near upper end of aperture.Callus beginning about midway on columella, not much expanded laterally, continued upwards nearly to suture with preceding whorl. The lower of the two incised lines on base (the upper being the basal groove) nearer to the latter than to the reflected columella.(contrast marmorata). 26 x 12 mm. (con.)

Operculum present but reduced in size, ovoid -oblong,slightly concave,growth lines distinct, with very fine striae radiating from nucleus, 3 x 2 mm. in 17 mm. shell with 11 mm.aperture.
Brown, apex white,a white band below the brown suture on body whorl, another white band above reflected columella on base. The variety figured by Turton chequered with oblong brown spots.
Animal pale biscuit color....Remarks: As typical of this species and of marmorata I have had for comparison examples identified by Tomlin. Thiele was unable to find any trace of an operculum in his specimens. His description of the radula bears out the variability of the cusps which I have found in several examples." End quote.

Ancilla marmorata Reeve,1864 Conch. Icon.,pl.9,figs.32,a,b
Ref. Minutes 183,p.16
1892 Sowerby. Mar. Sh. S. Afr., p.17,pl.1,fig.15 (pura)
1903. Von Martens. D. Tiefsee Exp., vii, p.38.
1906. Smith. Ann. Natal Mus.,i,p.27,pl.7,fig.4 (ordinaria)
1925. Thiele. D. Tiefsee Exp., xvii,p.190,pl.33(21), fig.16
Referred with ? to agulhasensis)
1932. Turton. Mar. Sh.Pt. Alfred,p.32, and var. major.

Barnard, p.70, Fig.16(g) as follows," Distinguished from fasciata by the two incised lines on the base being farther apart,the lower one being midway between the upper line(which is the basal groove) and the reflected columella;clearly shown in Smith's and Thiele's figures. 19 x 9 mm. (S. Afr.Mus.), 21 x 9 mm.(Sowerby); 20 mm. long (Turton: var major). Operculum present but reduced in size, ovoid, with distinct growth lines and very fine radiating striae, 2.5 x 1.5 mm. in 10 mm. shell with 6.5 mm. aperture.
Fawn or pale buff,sometimes with faint mottling or axial lines, a darker sutural band on body whorl, and another between the two incised lines; or pure white. Remarks. A. pura appears to be a somewhat slender example of this species,but Sowerby's figure is inadequate. One living specimen was taken by the Pieter Faure off the west coast of the Cape Penninsula in 60 fathoms; it is white, and seems indistinguishable from marmorata..." End Barnard quote.

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Ancilla balteata Swainson,1825 Journ.Sci.,vol.18,p.12
Ref. Minutes 183,p.12. In our preliminary outline we had seen no specimens of this species. It is of the subgenus Eburna Lam. and umbilicated similar to A. glabra. A few of the sets noted recently are: U.S. Natl. Mus., #216834, Mollucas- # 216835 also Mollucas but is albino and labelled A. balteata nivea Swainson. Am. Mus. Nat. Hist., # 24668, Ceylon. Specimens are large 2" white, heavy shoulder, and umbilicated as noted. Another set #10614, labelled A. (Dipsacus) balteata , Gulf of Arabia. Shells same as above. #10616, and 44562 ,Moluccas are yellow banded.
The species seems to be quite distinct.

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Ancilla acuminata Sowerby,1871 Ref. Minutes 183,p.9
Some of the material recently examined are, - U.S. Natl. Mus. #18332, Red Sea- others labelled A. lineolata A. Adams - Am. Mus. Nat. Hist. # 9871, Zanzibar- #48489,Zanzibar. Shells of light yellow,brown interior, higher spired but very close to A.cinnamonea. We doubt if they are consistently separable.

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Ancilla summatrana Thiele,1925 Deutschen Tiefsee Exp.,Taf.21, fig.11. This is the type species of subgenus ~~E~~ Gracilancilla Thiele,1925. Deep water species.None seen but seems distinct.

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Ancilla cinnamonea Lamarck 1801 Syst. Anim.,1801,p.73
Ref. Minutes 183,p.13-185,p.2

This is the type species of the genus Ancilla s.s. , and for this reason is of particular interest. Our experience has been to find that this is either a very variable species or a number of species ~~are~~ so closely related to it that it is very difficult to separate them. Some of the material recently examined will follow. U.S. Natl. Mus., # 23121, Gulf of Suez, labelled Ancilla striolata Sowerby = A. cinnamonea- #23011, Gulf of Suez, labelled A. crassa Sowerby = A. cinnamonea- #10572, Red Sea, labelled A. cinnamonea crassa Sow. These shells are smaller, more squat, with heavier callus on the columella to the suture above the lip. They are probably a recognizable variety. Set # 10579,Moluccas. Shells are a dunn color with more of a twisted columella.//We placed this in the synonymy of A. cinnamonea , but this form may be distinct. Are labelled A. deshayesii A. Adams, small, all albino. Am. Mus. Nat. Hist.,#10578, Red Sea, is labelled A. cinnamonea fulva Swainson. This is a large set. The shells are much more obese. We think that they may be distinct, and will tentatively retain A. fulva (Ref. Min. 183,p.15). There are other sets from the Red Sea area labelled A. fulva, and these show considerable variation also. Am. Mus.Nat. Hist. #10588,10601,10589 , all from Australia. Shells are marked with dashes of brown around the band above the suture. Another with same on center of apical whorls. Others obviously juvenile, more slender but with same pattern. These sets are no doubt properly labelled A. marginata Lam. They may be separable. Another set #48482, Red Sea, labelled A. cinnamonea . This set is certainly a variation from the above being beautiful shells, large for this group, 30 to 35 mm.,glossy brown, one light band below the suture, suture marked with a dark red line. 10568,Zanzibar, marked with white bands. Set # 10573 contains shells with the white bands, and others lacking this character obviously intergrading the specimens with the white bands into the pure amber. #10569, Zanzibar. Yellow brown, banded above fasciole with ring of white, also just above suture, and a little variation in form. #10566, India, Shells similar but a variation. #24148, India. Shells glossy amber. It may be mentioned in passing that we recently received a series from Mozambique, Portuguese East Africa that match the last mentioned set. We assigned them to A. cinnamonea in the Burch collection. Another species that seems to appear on labels in most of the large collections is Ancilla albisulcata Sowerby. After noting numerous sets, as Acad. Nat. Sci. Phil.,#185612, Zanzibar- #66173, Red Sea- Am Mus Nat Hist. #10549,Zanzibar-10548,Zanzibar-48476 Red Sea. It is possible that the Red Sea specimens may be consistently a little higher spired than those from Zanzibar,Mozambique etc., but with abundant material at hand from many localities, it is our opinion that we have one variable biological entity.

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Ancilla ampla (Gmelin),1791 Ref. Minutes 183,p.9

There seems to be no problem with this species other than the fact that occasional sets in the large collections bear the label, Ancilla candida Lamarck, which we consider = A. ampla (Gmelin).

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Ancilla cingulata Sowerby,1830 Ref. Minutes,183,p.13 185,p.4

This species was rather thoroughly discussed, but we have seem a great deal of additional material. Some of the large museum sets are labelled A. similis Sowerby,1871 = A. cingulata Sowerby. Am.Mus.Nat. Hist.#48470 ,Torres Straits are albino.

SOME TYPE DESIGNATIONS IN ANOMIACEA

BY A. Myra Keen

While revising the Anomiacea for the " Treatise of Invertebrate Paleontology", I found that type species had not been selected for several genera. Most of these generic names have rightly been considered synonyms of earlier names, though at least one could have been used by an author who overlooked it, and even now an injudicious designation could invalidate the name he proposed. Therefore, to maintain the *ststus quo* and for clarity, the following selections are made:

Echion Poli, 1791 (Test. Sicil., vol.1,Introd.,p.34; " in *Anomia caepa*,*squamula*,etc."). Type species, here selected, *A. caepa* Linne' 1758, a variant of *A.ephippium*, type of *Anomia*. Had the species *A. squamula* been selected, *Echion* would antedate *Heteranomia* Winckworth,1922.

Echionoderma Poli,1795 (ibid., vol.2,pp. 255,261; " in *Anomia caepa* et *ephippium* L., *margaritacea*,*sulcata*,*pectiniforme*, etc., and *A. squamula* L.". Type species, here selected: *A. ephippium* Linne',1758. This makes *Echinoderma* an absolute synonym of *Anomia*.

Indoplacuna Vredenburg,1924 (Rev. Geol. Survey India, vol.55, pp. 110,117; species included , *Placuna* (I) *birmanica*,*promensis*, and *sindiensis* Vredenburg). Type, here selected, *P.sindiensis* Vredenburg, from the Miocene of northwestern India.

Sellaria Link,1807 (Beschr. Nat. Samml. Univ. Rostock, no.3, p. 158; species included, S. *anglicana* and *polonica* Link). Type species, here selected, S. *anglicana* Link= *Placenta ephippium* Philipsson,1788 [" Retzius," auctt.]. *Sellaria* thus becomes an absolute synonym of *Ephippium* Röding,1798. Selection of *S.polonica* ,which is a synonym of *P. quadrangula* (Philipsson), would give no advantage, as this species falls in *Placuna* Solander,1786, of which *Ephippium* is at best only a subgenus.

Hypotrema Orbigny,1853 (Jour.Conchyl., vol.4,p.432; species included , *H. rupellense* and *H.triangulare* Orbigny). Type, here selected, *H. rupellense*. This seems to be a synonym of *Pulvinites* Defrance,1824. From the Jurassic or Lower Cretaceous of France.

CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA
August 4,1959 Minutes

The meeting, held at the California State Fisheries Laboratory, was called to order at 7:30 P.M. by the president, Dr. Donald Shasky. Forty-six members and guests were in attendance.

The minutes of the July 7 meeting were read and approved.

Crawford Cate introduced the speaker of the evening, Mr. John E. Fitch, Research Director, California State Fisheries Laboratory, whose topic was " Molluscan work of the California Department of Fish and Game."

Fitch pointed out that the Dept. of Fish and Game was supported entirely by funds obtained from hunting and fishing license fees, taxes and such. No~~o~~ money from the State General Fund is used in administering Fish and Game affairs. The administrative organization of the Department in general and Marine Resources Operations in particular were explained, as were the various research projects currently in progress at the California State Fisheries Laboratory.

A fair amount of time was taken to explain characters utilized in identifying Californian abalone juveniles,smaller than two inches in diameter, from shell characters alone. A positive key to their identification has not been written as yet, but characters were given for identifying juveniles of *Haliotis cracherodii*, *H.sorenseni*, *H. asimilis*, *H. rufescens*, *H. fulgens*, *H. wallalensis*, *H. corrugata*, and *H. kamchatkana* , all of which are Californian species and *H. californianus* from Guadalupe Island, Mexico. These nine are all valid species recognized by the speaker from the waters off the west coast of North America. Juveniles of all nine were displayed for critical examination of the group.

The speaker also displayed collections of *Haliotis cracherodii* made at monthly intervals over the period of a year at White Point. These indicated a setting time in the late summer or early fall and an average growth of about one inch in one year. Several of the tiniest were only one to two millimeters in greatest diameter and many of the smaller shells had not yet attained a first branchial aperture or hole.

Work on the freshwater clams *Corbicula leana* and *C. fluminea* in the Coachella and Imperial Valleys was discussed. It was brought out that *C. leana* , quite common in irrigation canals throughout the Colorado River drainage had not yet been recorded from the state. It is a Japanese species.

Trawling in Santa MOnica Bay, being conducted by the City of Los Angeles in the surveillance of the sewer outfal at Hyperion was briefly mentioned. Some of the records of mollusks taken in this work were made available for the group to examine. The talk was completed with a short discussion of the various publications put out by the Department of Fish and Game. Copies of each of these were left for examination during the intermission which came at 9:10 P.M. after Rose Burch had introduced the guests present. After the break John Fitch passed out sets of the formerly rare mytillid, *Amygdalum pallidulum*, to all present. These had been collected in some 600 feet of water, several miles off Venice, California.

Rose Burch had brought a number of mimeographed copies of the records of the Lost Operculum Club. These went like hot cakes. Rose also made available a number of copies of " Characters to Study in the Classification of Mollusks" by John Q. Burch. These had been reprinted from the October,1956, Minutes.

Drs. Shasky and Bruce Campbell reported having been on a field trip to Santa Catalina Island on August 2. Among other items they

collected live Trivia californiana and Murex santarosana. Rose Burch called the latest issue of the " Nautilus" to the attention of the group. It contained Allyn Smith's article on Beringius , and another by James McLean on " Gastropods from West Mexico". The latest copy of " Leaflets in Malacology" by Dr. S.S. Berry was also mentioned for the several new species described therein one of which honored our president, Dr. Donald Shasky.

John Fitch pointed out that the average attendance for the first six months had been 56.5 people. Best attendance (March) was 67 and poorest (February) was 46. In all, 124 different people, including the speakers , had been present during the first six months. Twenty-one of these had perfect records. The meeting was adjourned at 9:55 P.M. Respectfully submitted,

John E. Fitch, Secretary

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The Burches have had the pleasure of a number of house guests lately.

Dr. Tadashige Habe,Amakusa Marine Biological Laboratory,Reihoku-cho, Amakusa,Kumamoto-ken, Japan, was with us for several days on his way to attend the International Conference of Oceanographers in New York. We visited the local institutions as well as the San Diego Museum and the Scripps Institution of Oceanography.

Edwin Bryan, Curator of Collections, Bishop Museum, Honolulu 17, Hawaii was with us while on his way to visit the scientific institutions of the states. It is always a pleasure to be with Ed.

Mrs. Ora Willett, now located in Costa Rica, stopped for a few days on her annual vacation. Of course, it grieves us that Ora, as a Union Oil Co. paleontologist, is now more interested in Foraminifera than she is in mollusks.

Mr. and Mrs. Don Hiatt visited us while on their return trip to Agana, Guam. They are very happy to return, and it is always a pleasure to have our friends stationed in their chosen and favorite locations. They are really fine shell collectors.

Mr. and Mrs. E.P. Chace stopped with us while here from San Diego to attend the Sept. meeting of the Conchological Club at the Cates.

Frederick Sibley, Boston, Mass. stopped on his way to San Francisco where he hoped to have a visit at Stanford University and Calif. Academy.

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Robert Ross Alexander

The death of our fellow shell enthusiast is a loss made closer to many of us who attended the recent meeting of the A.M.U. P.D. at Redlands University. Mr. and Mrs. Alexander were rarely absent from important shell affairs. They have been enthusiastic correspondents and exchangers. Mr. Alexander is survived by his widow, Grace, as well as by four daughters, 11 grandchildren, and three great grandchildren. Mr. and Mrs. Alexander celebrated their golden wedding anniversary last year. Their home is 8542 Lemon Ave., Lemon Grove, Calif.

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Mr. and Mrs. Ross Stotter of Imperial Beach, California left Sept. 7th for another extended tour of the south seas on which they plan to visit New Zealand and Australia. Their last trip was to Fiji, and the shell loot they got was the envy of all.

Publications Received

A Check List of the Marine Shells of St. Croix, U?S. Virgin Islands, with Random Annotations by G.W. Nowell-Usticke. 1959

This is a well printed booklet of 90 pages, plus plates illustrating approximately 100 species. The photographic illustrations are excellent. The author gave this work the name Check List which it is, but it is much more than a mere check list. The extensive descriptive notes of the author make excellent reading and add immeasurably to the work. It might better be titles a Treatise on the mollusks of the Caribbean. In this connection it may be added that it has been many years since we have seen a check list of this fauna. The work is well done and lists 720 species and subspecies. Included in these are 24 new species and 16 new subspecies or varieties. This makes the work a necessity on all library shelves concerned with this fauna, or for that matter to all libraries concerned with systematic zoology.

The price is $4.10 postpaid, and may be ordered either from the author or from John Q. Burch.

South Australian Mollusca -Archaegastropoda By Bernard C. Cotton Handbook of the Flora and Fauna of South Australia issues by the South Australian Branch of the British Science Guild (now incorporated with the British Association for the Advancement of Science), and published by favour of the Honourable the Premier (Sir Thomas Playford, G.C.M.G., M.P.). July 1,1959.

Cotton's work on the Pelecypoda and the Cephalopoda was published several years ago and received general acceptance and praise. This is a substantial volume of 449 pages, 215 illus.

The bibliography of the principal works on South Australian Gastropoda is well done and of great value in itself. This is followed by a checklist of genera and species. It is a scholarly work with proper references given.

It is a matter of opinion whether there is genuine systematic value in the monumental group of genera given to the mollusks of Australia. Some of us may wonder what advantage is gained by the use for example in the family Haliotidae of *Schismotis* Gray (one species), *Exohaliotis* Cotton and Godfrey (one species), *Notohaliotis* Cotton and Godfrey, (3 species), *Marinauris* Iredale (1 species), Neohaliotis (2 species). Most of these species were described by older authors, have been figured and described in numerous publications. It is a simple matter to observe a specimen and know that we have a species of the Haliotidae in hand, and then a comparatively easy matter to determine the correct species. The real problem is to decide which genus to assign it to unless (as in many cases) the genus is monotypic. The use of these divisions as subgenera or sections may well be of some cabinet value.

Please do not construe my comments above to reflect in any way upon the excellent work before me. The author's keys are well made and they are easily followed . They are good and not as so many keys that appear to work for the author of them and no one else. Be~~e~~ assured that every scientific name has the author, date, and proper reference.

This work is indispensible to any student of this fauna.

Pleistocene Mollusks from Tecolote Creek, San Diego, California by William K. Emerson and Emery P. Chace. Trans. San Diego Soc. Nat. Hist.,Vol. XII, no.21, pp. 335-346, figs.1-3, May 27,1959.

Well written, well documented, a worth while contribution.

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CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

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* * *

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* * *

Writers are invited to submit papers for publication in this journal.

It was our intention to omit a discussion of Pseudoliva, Fulmentum, Sylvanocochlis, and Melapium . The shells in no way resemble any of the olives, but Thiele placed them in the Olividae on the basis of the radula, and has been followed by others.

Genus Melapium H. and A. Adams,1853 Gen. Moll.,i,p.136
1889 Smith. Ann. Mag. Nat. Hist.,(6),iii,p.267
1929. Thiele. Handbuch, i,p.332
1937. Peile. Pro. Mal. Soc., xxii,p.182 (radula)

K.H. Barnard,1959,Ann.So.Afr.Mus., vol.xlv,p.71, describes the genus as follows,"Shell broad, rounded-piriform,body whorl bulbous outer lip expanded from middle bordering the canal in adult. Spire low, protoconch papilliform. Columella curved, with a ridge from middle bordering the canal; strong parietal callus within aperture posteriorly. Periostracum thin. No operculum. Radula with broad central plate,tricuspid, lateral plate unicuspid (as in Oliva)." End quote. The type species is Melapium lineatum (Lamarck).

Melapium elatum (Schubert & Wagner) 1829 Conch.Cab.,xii,pp.92, 94,pl.226,figs.4012,4013 (Pyrula e).
1901. Smith. J. Conch., x, p. 110
1952. Bayer. Zool. Med.,xxxi,no.25,p.297 (as syn. of lineatum).
Barnard, P.72, discusses," Large. Whorls 4,last whorl with a blunt but definite shoulder, 63 x 61 mm.(protoconch worn). White with numerous narrow axial brown or orange lines,slightly undulate and sometimes broken into discontinuous streaks. Off Durban, 40 fathoms (from fish stomachs) (Smith,1901). Distribution, East Indian seas. Remarks. Smith's record is the only one with precise locality. S. Afr. Mus. has 4 larege specimens and one half grown from the Ross-Frames collection, without locality; but they look as if they might have been taken from fish stomachs,from which Ross-Frames is known to have obtained some of his shells. Bayer includes this species as a synonym of lineatum. Probably only one species should be recognized. The smallest of the 5 specimens ex coll/ Ross-Frames measures 40 x 38 mm. and has a definite shoulder on the last whorl." End Barnard quote.

Melapium lineatum (Lamarck) 1822 Anim. sand Vert.,vii,p.147, no.27,(Pyrula l).
1856. Wood. Index. Test., ed. Hanley, p.212,pl.4,fig.8(Buccinum bulbus)
1889. Smith. Ann. Mag. Nat. Hist., iii, p.269 (with radula).
1903. Von Martens. D. Tiefsee Exp., vii,p.26
1903. Thiele. ibid.,p.166, pl.9(4),fig.51 (radula)
1915. Bartsch. Bull. U.S. Nat. Mus., 91,p.62 (bulbosum err.)
1925. Thiele. D. Tiefsee Exp., xvii, p.191.
1932. Turton. Mar. Sh.Port Alfred, p.79 (bulbosum err.)
1937. Peile. loc. cit.,p.182,fig.16 (radula)
1951. Barhard. Beginner's Guide S. Afr. Sh.,p.69,fig.15 and fig.37 (egg-capsules).
1952. Bayer. Zool. Med., xxxi, p.297 (references)
Barnard, 1959, p.72,Fig.15(c) describes as follows," Protoconch, all specimens worn. Postnatal whorls 4/ Last whorl without any trace of a shoulder;3rd and beginning of 4th whorl with 4-5 feeble spiral striae on upper part. 30 x 28 mm.; smallest example seen 9 x 6 mm. White with numerous axial or brown lines,sometimes undulate or arcuate or discontinuous,sometimes in addition an irregular series of oblong (axially) spots around the periphery(con)

anterior canal externally suffused with crimson. Animal (as preserves) foot dull buff with 2 submarginal red lines; Prof. Day says the margin is blue when alive. Radula with 60-65 rows."
End Barnard quote.
This species must be quite common because the Burch collection and stock contains large numbers of them from various localities in South Africa.

Genus Sylvanocochlis Melvill,1889 (Melvill) in Sowerby, J. Conch. vi,p.149 (subgen.Mariona, non. Vayssiere,1879)
1903. Melvill. ibid.,x,p.325
K.H. Barnard,1959, Ann.So.Afr.Mus.,xlv,describes the genus as follows," Shell ovate-fusiform, with thick walls.Columella concave, with parietal callus constricting the posterior end of aperture, separated from outer lip by a narrow slit,which is accentuated by the slight depression on last whorl forming an indent in the outer lip. Canal short, wide. Last whorl with a spiral groove near base forming a denticle on outer lip. Operculum horny, large,oval,nucleus apical. Radula with a not very broad, tricuspid central plate, and bicuspid lateral plate (as in Pseudoliva). A monotypic,indiginous genus, if maintained distinct from Pseudoliva." End quote.

Sylvanocochlis ancilla (Hanley),1859 Pro. Zool. Soc.Lond.,p.429 (Pseudoliva a)
1889. Sowerby. loc. cit.,p.149,pl.3,fig,2 (Pseudoliva a)
1892. id. Mar.Sh. S. Afr., p.15,pl.1,fig.14 (Pseudoliva a) (this figure, reproduced from the 1889 figure, does not show the characteristic posterior slit in the aperture).
1903.(1 July). Melvill. loc. cit. p.324, fig.
1903.(8 July) Sowerby. Mar. Invest. S. Afr., ii, p.228(Pseudoliva a)
1904. Smith. J. Malac.,xi,p.23 (Sylvanocochlea err.)
1915. Bartsch. Bull. U.S. Nat. Mus.,91,p.23 (Sylvanocochlea err.)
1931. Tomlin. Ann. Natal Mus., vi,p.430.
1932. Turton. Mar. Sh. Port Alfred, p.33 (? and pl.7,no.246).
Barnard, p.60, (Fig.15(a), describes as follows," Aperture 1 1/2 - 1 2/3 times the spire. Protoconch 1 1/2 whorls, alt, 1.5,diam. 2 mm., smooth(but worn). Postnatal whorls 4. Periostracum thick forming close axial wrinkles, the free margins of which are minutely fimbriate. Operculum slightly ~~concave~~ convex, 23 x 12 mm. in 51 mm, shell. Fulvous or slightly pinkish or violaceous ,periostracum dull brown, operculum dark brown. Animal pale, sprinkled with black specks around margin of foot,siphon closely ringed with black. Radula of Algoa Bay specimen with 57 rows, fig.15(a)." End quote.
An examination of a series of specimens of this species in the U.S. Natl. Mus. leaves one disposed to be incredulous that they are in the family Olividae. Odd, heavy calloused shells. Sets #22772, Port Alfred; #250440, Port Alfred, W.H. Turton.

Genus Pseudoliva Swainson,1840 Treat.Malacol.,May,1840,82 & 306
Thiele . Handbuch.der Syst. Weich.,1931, p.331.
Thiele describes a new subfamily, Pseudolivinae , p.330-331.

Pseudoliva crassa (Gmelin) 1790 LinnSyst.ed.13,I,3421
Thiele figures the radula of this species, " bei Westafrika". We have not seen specimens assigned to this species.

Pseudoliva plumbea (Dillwyn),1817 Desc. Cat. Shells
This species is figured and described in Nickles, Mollusques testaces marins de la Cote occidentale d'Afrique,p.107,fig.189, 1950. The sets in the U.S. Natl. Mus. are interesting. (con).

Set # 46002, Lobito, Africa. Large shells about 35 mm.,globose, very heavy callus on the columella, deep channel at the fasciole. There are several other sets of the same.

Genus Fulmentum, P. Fischer,1884 This genus was proposed for one species very closely related to the above mentioned P. plumbea. The genus is described by Thiele, p.332, as a genus in his subfamily Pseudolivinae. It is based upon one species. Fulmentum is accepted by Nickles. It seems that they are indiginous to West Africa.

Fulmentum sepimentum (Rang) 1832 P.S. Rang, Magasin de Zool.,II, 1832, pl.18.
The species is figured and described by Maurice Nickles,1950, p.107, fig.190. Type locality was given Golf von Guinea (Prinzen-Insel). Nickles lists it from Dahomey et ile du Prince.
Sets observes in the collection of the U.S. Natl. Mus., #5507 and #5505, from West African localities, are smaller shells than plumbea , possibly 15 mm. average. They are banded and abit more cancellate.

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Miscellaneous Notes or Corrections

Olivella nota (Marrat),1868 Ann.Mag.Nat.Hist. vol.2,(4th Ser.) 1868, p. 213
Thes. Conch.,vol. IV, p.36,pl.351,fig.428
Ref. Min. 187,pp.5-10. We placed this species in the synonymy of Olivella baetica (Marrat in Sowerby) ex. Carpenter MS. We retain this assignment of the name, but held it in abeyance for a time because of the fact that Kuroda and Habe had listed it in Check List,1952, as a valid species from Japan. We think this was in error. The note in Thes.Conch.,Sowerby, states, " The specimens somewhat resemble O. baetica with which one of them came.". Tomlin, in his study of the type, states, " Holotype only. British Columbia. 11 mm. x 4.5 mm."

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Olivella alectona (Duclos,1835) Monograph, Oliva, t.4,figs. 15,16. We have followed Tryon and others in placing this name in the synonymy of the species we know now as Olivella baetica (Marrat,1871) ex. Carpenter MS. However, it is obvious that a matter of priority is involved here. In Sowerby, Thes. Conch., the statement is made under O. baetica," 182. baetica - O. petiolita Gould. The colors with which most of the specimens are variegated are more clouded, and the lines more spread into patches than in Duclos figure of O. alextrona , but the difference seems hardly essential." There seems to be no doubt but that O. petiolita Gould non Duclos = O. baetica . We are unable to determine from the figures alone whether Duclos had O. baetica when he figured O. alectona. If they are the same, it would seem that O. alectona should either be suppressed or accepted as the name for the common eastern Pacific species.

Oliva spicata (Röding) 1798 Mus. Bolt.
Our examination of a number of types failed to alter our conclusions materially regarding the numerous named varieties of this species. Ref. Min 184, pp.20-27. Type specimens in the Acad. Nat. Sci.Phil., # 11729 of variety perfecta Johnson . This is a large brown form with plications on the columella running to the suture. In Min. 184, p.23, we considered this form the same as fuscata Marrat. This conclusion is verified by noting one of Marrat's types, # 15899, ANSP. However, it would seem that all are the same as onisca Duclos, and all again not separable from ustulata Lamarck. The same variations are to be seen in the collection of the Am Mus Nat Hist. # 9715 labelled O. spicata oniska is the not uncommon west coast type overlaid with glossy brown enamal. There are numerous other sets of the same color form labelled O. spicata var. ustulata Lam/ O. oblonga Marrat in this collection = O. spicata , typical.
In Acad. Nat. Sci. Phil., we noted set # 111597 labelled O. spicata intertincta Carpenter. These are small light colored specimens of the form discussed as var. venulata in Min. 184, p.27.
The types of O. spicata var. hemphilli in no way alter our disposition of it in Min. 184, p.23.
Oliva obesina Duclos,1835. In Min. 184,p.23, we discussed this name briefly as a variety of Oliva spicata . Some of the confusion is no doubt due to Reeve, Conch. Icon.,pl.10,fig.16c which certainly appears to be a very robuset specimen of O. spicata, matching many specimens in the Burch collection from the eastern Pacific. However, there are so many and so different specimens assigned to this name that a further consideration should be given. Tomlin, in his notes on the Marrat types in the Liberpool Museum seems to rather bear out the conclusion in Tryon , Man. Conch., who assigned the name to the synonymy of the form we know as Oliva fulgurator (Röding). Tomlin's comments re Oliva graphica Marrat (which we also placed in the synonymy o~~XXXX~~ O. spicata) follows, " O. graphica Marrat , Thes. Conch.,1870, Sp. 18,p.6,fig.26 . Three possible syntypes. South America. Largest 43 mm. x 16 mm. I should say the largest shell is the original of Fig.36 though it differs in one or two details of colouring. These three are labelled 35 (porcea M.) but the tray has the name graphica Marrat pasted in. Both are synonyms of O. obesina Duclos,1835/" Our conclusion is that Marrat's South America is the west coast and probably Ecuador, and the status of O. obesina remains a form of O. spicata (Röding).
An investigation of some of the species placed in the synonymy brings up some rather interesting errors in locality records. An example might be Oliva brunnea Marrat,1870 . Marrat gave the locality as Borneo, but all students seem to agree that it is O. spicata of the Eastern Pacific. Tomlin's comments on the type in Liverpool, " Holotype only. Borneo. 33 mm. x 15 mm. = O. spicata (Röding).

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Oliva pacifica Marrat,1870 Thes. Conch.,p.15,t.11,f.151
This is a species to date assigned to ' status uncertain'. We assigned it in our preliminary diagnosis to the synonymy of Oliva mustellina Lamarck. Some authors have accepted O. pacifica as a valid and separable species. Weinkauff, 1878, 32,11 accepts the species and places O. arctata Marrat in the synonymy. Species 22- China. Tomlin, in his study of the Liverpool types states, " pacifica Holotype only. China Sea. 38 mm. x 15 mm. See remarks under O. arctata." Under O. arctata Tomlin states, (con.)

" O. arctata. Thes. Conch.,1871, Sp.99, figs.229,230. Holotype only. China Sea. 25 mm. x 10 mm. Obviously the young of O. pacifica Marrat" End Tomlin quote.
Conclusion- Until further material is available for study, we will leave the group with O. mustellina with a question.

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Oliva mustellina Lamarck,1810 Ref. Min. 182, p.22
Many sets of specimens seem to be assigned to this species in the large collections that are certainly not mustellina. Nor is it surprising to find true mustellina assigned to other species. There is a series in one of the large museum collections labelled Oliva elegans Lamarck from various localities in Japan. We think that these are all mustellina , have never seen elegans from Japan proper and do not think that elegans is in the fauna of Japan.
Variation in one biological entity or grouping of several closely related species are possibilities to consider in this as well as other species of this family. Numerous sets of this group arrive from Thailand. Such shells are in the Burch collection, others are to be noted in the collections of the U.S. Natl. Mus. and others. These shells seem to be O. mustellina in all characters other than the disturbing fact that the spire seems to be consistently more exserted. We hope to see more material as well and possible connecting localities. However, we have been able to examine material ranging into what would seem to be the same faunal province. For example, in the collection of the U.S. Natl. Museum, # 131058, labelled from India, and # 360428, Yenking, Chikiang Prov.,China, all seem to be close or identical to the shells we know as O. mustellina from Japan. Acad. Nat. Sci.Phil. #15106, Singapore and 15857 Singapore are typical and the same as those from Japan proper. #228961, Barrio Rizal, near Gubat, Luzon Id.,Philippines. This is a large set and seem to be typical. Another set #111579 labelled O. angustata Marrat, Ceylon seems to be O. mustellina. #93491,Burma,Bengal Bay is also labelled O. angustata but is certainly another species. The fact that Tryon placed O. angustata in the synonymy of mustellina and figured a large variation is no doubt the source of much of the confusion. We now think that Marrat's O. angustata is a form of Oliva oliva (L.). In fact, many sets of clearly O. oliva have been labelled mustellina.
In our preliminary discussion we placed Oliva cana Marrat (Thes.Conch.p.15, t.11, f.152) in the synonymy of O. mustellina. It is of interest to note Tomlin's comments on Marrat's type in Liverpool," Holotype only. New Guinea. 37 mm. x 15 mm. Is a poor example of O. irisans Lamarck,1811." End quote. We are unable to determine from the figure in Thes. Conch. whether or not this is O. cryptospira Ford or O. mustellina Lam. In either event it is in synonymy.

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Oliva oliva (Linnaeus) 1758 Ref. Minutes 181,p.6
In our prelinary diagnosis we placed the following name in the synonymy of O. mustellina Lam., but have decided after seeing compared specimens to alter this to the synonymy of Oliva oliva.
Oliva angustata Marrat,1868 Ann. Mag. Nat. Hist.,Vol.2(4th Ser.) p. 213. Tomlin's comments on the type are," Two syntypes.China. Orig. of Fig.182 (Thes.Conch.) , 25 mm. x 12 mm; shell~~s~~ of Fig.183 26 mm. x 11 mm. Very young shells of O. oliva (Linnaeus)." End quote. Some of the material recently examined are, -Acad.Nat.Sci. Phil., #209013, Wooi Bay,Japen Id.,Dutch New Guinea-Specimens

(con.)

have a dark rim along the edge of the lip; #206571, Dutch New Guinea, Juvenile specimens with other species included. Am. Mus. N at Hist. Large sets from Mauritius labelled O. maura- fine large shells containing many of the color forms. #9778, Moluccas Specimens are green with broken bands of darker green. Seems to be between var. macleaya and fenestrata. #9775 O. o. fenestrata- of a greenish yellow, E. Indies. ; #9777 Moluccas and #9774 Australia, are the same; # 9773,Paparoea,Moluccas are black, typical; 24632 var. fulminans, Indian Ocean; #9781, New Guinea, very large, greenish gray, dark chocolate spots. There are numerous other sets of all color forms. Acad. Nat. Sci. Phil.,#111969 var. macleaya , Mauritius, yellowish, green dotted;#111617,Mauritius, is var. fenestrata, greenish olive, one banded; 111610 Mauritius, coal black, typical;#205266, Dutch New Guinea, same; 193894 Zamboanga,Philippines,black, typical; #111615, Singapore, is var. macleaya; #14825 Ceylon, mixed lot of color forms; 14824 Ceylon, is var. sepulturalis.

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Oliva rufula Duclos,1835 Ref. Minutes 182,p.23

We had thought that this species was a form confined to the Philippine Islands. In the Acad. Nat. Sci. Phil., there is a set, #201112 labelled from Mauritius. The specimens seem to be typical, but if this locality is accurate it indicates a much greater distribution than we had thought.

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Oliva flammulata Lamarck,1811 Ref. Minutes 182,p.24

It is surprising that so very many sets in the large collections are labelled Oliva marmorea Marrat,1871. This name is based on Martini, and Martini being invalid, not bonomial, hence nn, this name must be placed in the synonymy of Lamarck's flammulata.

A few such sets noted are, Calif Acad Sci. ,Goree I.,Dakar, Senegal; Acad. Nat. Sci. Phil., # 111596, John Ford Coll.; #15906, Senegal, same; 185602, Cape Verde Islands, same.

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Oliva fulgurator (Röding,1798) Ref. Minutes 183, p.24

Some of the material recently examined are - Am.Mus. Nat. Hist. #48411,South America, is labelled Oliva bullata Marrat, Tomlin, in noting the holotype of O. bullata in the Liverpool Museum, noted," No locality. Holotype only. 60 mm. x 26 mm. Probably an unusually elongate O. fulgurator (Röding,1798)." We concur with this assignment after studying specimens. Acad. Nat. Sci.Phil. # 14625, Curacao. This is certainly the species. It is remarkable that so many sets of this species are to be seen in the largest collections simply labelled ' West Indies' without more exact locality data. The collection of the U.S. Nat. Mus. contains a number of sets all labelled O. fusiformis which = fulgurator , and all labelled West Indies.

In our preliminary discussion of this species we placed the following in the synonymy, Oliva mercatoria Marrat,1871, Thes. Conch.Sp. 111, p.22, Figs. 268,269. Tomlin's comments on the type are," One syntype. West Indies (ex. Thes.Conch.) 41 mm. x 19 mm. = O. reticularis Lamarck,1811 (a light colored variety. (T). This shell is the original of Fig. 268. The original of Fig. 269 has not been found." (W.K.F.). The fact that this may be a color form of O. reticularis is of passing interest.

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Oliva reticularis Lamarck,1811 Ref. Minutes 184,pp.6-8

We placed the following names in the synonymy of this species in our preliminary discussion. No changes are to be made but the

(con)

following data may be of interest for the record.
Oliva bewleyi Marrat,1870 Thes. Conch., Sp.25, p.7,Fig.44. Tomlin's comments on the type are, " Holotype only. South America. 42 mm. x 18 mm. = O. reticularis Lamarck,1811 (T.) Spelt bewleyi on caption to plate,bewlei on page 7. Mrs. McMillan notes that it was named after I. Bewley of Poulton.(W.K.F.)". End quote. We have seen but few specimens assigned to this name. One set in Am.Mus. Nat. Hist. seems rather close to O. caribaeensis Dall and Simpson.
Oliva figura Marrat,1870 Thes. Conch., Sp. 26, p.7,Fig.45. Tomlin's comments on the type were," Holotype only. South America. 42 mm. x 12 mm. This is a pretty dark variety of O. reticularis Lamarck,1811."
Some other material examined- Am. Mus. Nat. Hist. #9614 as var. bifasciata Küster (Weinkauff Monog. 38-figured in Weinkauff pl.v,f.11 & pl.x,figs.8,9). We are unable to detect any material difference between this older name and O. reticularis greenwayae Clench. Numerous sets are assigned to var. greenwayae i.e Acad.Nat Sci.Phil. #181253, Grand Bahama. Also in this collection is a set of passing interest. It is #14982 labelled O. reticularis formosa Marrat. The specimens are solid brown in color but the form is typical. It is interesting though to note that Tomlin, in his study of the type assigned the name to O. spicata, his comments are," Formosa. Thes. Conch. 1870, Sp.16, p.5,Figs.29,30.Holotype only. No0 locality. 46 mm. x 19 mm. = O. spicata (Röding,1798.". There are several sets of the var. bifasciata Küster in the Coll. of Acad. Phil.- #14981, Nassau, Bahamas; #15925, Jamaica.

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Oliva violacea Marrat,1800 Ann. Mag. Nat. Hist., Vol.20(3rd. series0,1867, p. 213. In our preliminary discussion of this name we dismissed it as of no systematic importance as a color form of O. spicata. A word or two about it may not be a waste inasmuch as one of the local collectors brought a set of O. spicata from La Paz for our attention puzzled because some of them had a violaceous interior. Tomlin's comments on the type were,"Holo-type only. No locality. 40 mm. x 17 mm. Said to be a variety of either O. reticularis Lamarck or of O. spicata (Röding,1798)". End Tomlin quote. Sowerby, in his comments in Thes.Conch. made a good one on this species that might well be repeated for many others, " One of those peculiar shells that resemble many species, but cannot be distinctly assigned to any". End Sowerby quote.

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Oliva ispidula (Linnaeus,1058) Ref. Minutes 182,p.2 186,p.7
We placed the following name in the synonymy and are not altering our conclusion. However, we have seen quite a number of sets assigned to, Oliva blanda Marrat,1867 Ann. Mag. Nat. Hist., vol.20,(3rd series), p.214. Tomlin's comments on the type were " Holotype only. No locality. 20 mm. x 9 mm. It is the young of O. ispidula (Linnaeus,1758)." End quote. A rather unusual set assigned to blanda is in the Gifford Coll.,Calif. Acad. Sci. labelled Bambatani,Choiseul Id.,Solomon Islands, Ex. W.J. Eyerdam. These shells are juvenile in our opinion, about 15 mm. with a zigzag pattern of reddish brown dots on a white background.
Perhaps a word on another color form of this species should be added. It is O. oriola Lamarck,1822 and 1811 Ann Mus.Nat Hist.,vol.xvi,p.321. Ref. Min. 182,p.4. We have seen several very different species assigned to this name, no doubt due to the fact that Duclos figured a very different shell. Our original conclusion remains unchanged.

Oliva pygmaea Reeve,1850 Conch. Icon., pl.26,fig.75
The original description by Reeve follows," The Pygmy Olive. Shell cylindrically oblong,spire short,sharp at the apex,columella smooth,except that it is plaited at the base,the plaits being small and the interstices between them rather deep;orange-yellow, clouded and dotted with red brown,columella and interior of the aperture pure white. H ab.--? This is, perhaps,nearest allied to O. ispidula, but differs sufficiently from any of the varieties of that species." End Reeve quote.
Tryon, Man. Conch., vol.v, p.86,pl.32,fig.29," Orange-yellow, clouded and dotted with red-brown; columella and interior of aperture white. Lengthm 12 mill.. Habitat unknown. Except in the color of the interior, it resembles O. ispidula; it is a doubtful species." End Tryon quote.

While a number of variations have been accepted by some authors as a variation of O. ispidula without the dark interior, (i.e. var. candida Lamarck,1810- Ref. Min.182,p.2) we are reluctant to place a species in the synonymy lacking this predominant character of ispidula. It is obviously not an albino. We have seen no specimens in the collections assigned to this form, and none of our own seem to fit all of the characters. Conclusion: status uncertain.

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Oliva kaleontina Duclos,1835 Ref. Minutes 184,p.16
A note to add a few records. Am.Mus.Nat. Hist. # 72575,Cape Santa Elena,Ecuador, a fine series; #48412 Panama, a fine series including several graded into a solid reddish brown; #9672 Galapagos, large series, nice set but seem to probably all range somewhat lower spired than those from Panama southward. Acad. Nat. Sci. Phil.,#170359,Clatham Id.,Galapagos. Same as above.

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Oliva miniacea (Röding,1798) Ref. Min.181,p.12,p.32 185,p.3
Acad. Nat. Sci. Phil.,# 111862 of var. marrati Johnson. Is labelled O. sericea var. marrati = var. of O. miniacea, of the dark chocolate color.; #15114, New Caledonia is the same; #180885 Kwagelein Attoll, Marshall Ids., labelled O. porphyritica Marrat = miniacea. All museum collections abound with the color variations of this species labelled with an assortment of names.

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Oliva panniculata Duclos,1835 Ref. Minutes 186,p.5
We are convinced that this is a valid species and distinct. The range has been a matter for consideration. The species seems to have rather a wide range. Among specimens recently noted may be U.S. Natl. Mus. # 75162, Ceylon seems to be correct for the species. There is some variation apparent in the specimens from Madagascar. An example of these may be #9975, Am. Mus. Nat Hist. #54128, 4 specimens, 18 mm. These shells fit being yellowish white 1 broken band on lower part of the body whorl.

Dautzenberg, 1929, Mollusques testaces marins de Madagascar, pp.374-375 lists the species.

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Oliva paxillus Reeve,1850 Ref. Minutes 183,p.23-185,p.2-186,p.6
Syn. O. sandwichiensis Pease 1860,O. thomasi Crosse ,O. nitidula Duclos XXXXWXX not Dillwyn. Some material recently examined. Acad.Nat.Sci.Phil.,#215629,Waikoko,Hanalei,Hawaii ex Ted Dranga; #188627, Hawaii, ex. Ostheimer. These shells are typical dark specimens, and all but one have the bars inside the outer lip. This is not a constant character.; # 197579, Agana,Guam, typical; #202736 Palau Ids.,;also #201139,#212356,Kiwenga,Zanzibat,typical.
(con.)

ANSP,#16034, Mauritius. These shells seem to be more elongate,but seem to be this species. Specimens all have the two bars on the inside of the outer lip. Am. Mus. Nat Hist. #48443 labelled O. nitidula Duclos, is typical of this species; #10544 labelled O. duclosi is of this form; #48444,Mauritius, and #41444 labelled O. sandwichiensis , Sandwich Islands; all of this species. U.S. Natl. Mus.- #338116 Honolulu and 33817 off Waikiki in 33050 fms labelled O. sandwichiensis. Acad. Nat. Sci.Phil. #202589,Angupelu Id., S.E. of Koror Id.,Palau Islands, Western Carolinas. These shells have the typical form and pattern including the two bars inside the outer lip which while not constant, is a fairly common character.

It should be mentioned that Marrat in Thes. Conch. figured O. jaspidea = O. duclosi Reeve 78-79- O. sandwichiensis Pease-82- and O. paxillus Reeve, 89. Marrat tried to indicate differences, but the figures are not convincing in the presence of specimens, and much less so when studies of the type species are added.

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Oliva ponderosa Duclos,1835 Ref. Minutes 182,p.24

Acad.Nat.Sci.Phil., contains one large set from Mauritius, #111573. This set contains specimens in a series from juvenile to adult, all obviously of this species.

Weinkauff,1878, made a study of this species- Weinkauff,species 35. Wk. 16, 1-3 Marr. 104. Weinkauff considered O. azemula Duclos,1835, pars. 15,1,2 to be a bariety of this species, and listed the following range, " Maskarenen,Pelew und Tongatabu Inseln." The status of Duclos' O. azemula has been a puzzle also. We placed it , in part, under O. miniacea (Röding) ,but it is interesting to see sets in major museum collections so labelled as in Am. Mus. #9738 of which the specimens are very obviously O. sanguinolenta Lamarck.

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Oliva textilina Lamarck 1811 Ref. Minutes 181,p.18

Specimens matching our concept of this species may be seen in most of the major collections bearing a monumental assortment of names. It is understandable that many are confused with O. tremulina. We will not discuss this further here.

We noted several sets assigned to Oliva sabulosa Marrat,1868 , Ann.Mag.Nat.Hist.,vol.2,(4th series),p.213. We had in our report placed this in the synonymy of O. textilina Lamarck,1811. The comments of W.K. Ford on the Liverpool types may be of interest here," Two possible syntypes. No locality. 52 mm. x 22 mm., 40 mm. x 18 mm. I recently found these shells in a tray with the cut out description of the species in the Ann.Mag.Nat. Hist. They have not been seen by Tomlin. G.L. Wilkins has identified them as young specimens of O. sericea (Röding) 1798." This agrees with our first conclusion because the specimens for a time assigned to O. sericea in our diagnosis = O. textilina Lamarck.

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Oliva tigrina Lamarck 1811 Ref. Minutes 182, p.7

Sets of specimens are to be seen in some of the major collections bearing labels assigning them to species that we have placed in the synonymy. One of these that may be mentioned is Oliva holoserica (Martini) Marrat,1871. An example is #47314 in the Am.Mus.Nat. Hist. We noted the type of var. fallax Johnson,1910 in Acad. Nat.Sci.Phil. It is merely the common coal black color form.

Oliva tremulina Lamarck,1811 Ref. Minutes 181,pp.15-17
Specimens of this species are to be seen in most of the major collections under many names. A frequent assignment is to the following, Oliva fumosa Marrat,1870, Thes. Conch.,sp.58,p.13, fig.119. A typical example may be Am.Mus.Nat.Hist.,#48399, Mauritius. Beautiful shells about 75 mm., brown,two banded,edge of outer lip tinted with pink. Tomlin noted in his study of the Liverpool type," H olotype only. No locality. 71 mm. x 30 mm. A very ordinary O. tremulina Lamarck,1811." However, this lot if true fumosa , while agreeing that they are tremulina are far from ' ordinary'. Acad. Nat. Sci. Phil. ,set #111608, India, are typical O. tremulina. Set #111568 labelled O. tremulina var. nobilis Reeve, Ford Coll. Indo Pacific, are typical tremulina.
In the collection of the Acad. Nat. Sci. Phil. we noted one of Marrat's types of Oliva concinna Marrat,1870 . This was labelled by a former curator as Oliva sericia pica Lamarck . Tomlin's note on studying the type in the Liverpool Museum was, " Concinna Thes.Conch.,1870, Sp.60, p.13,figs.100,101. Two syntypes. New Caledonia. Orig. of Fig. 100, 44 mm. x 18 mm. Orig. ? of Fig.101, 48 mm. x 18 mm. Immature shells dark form of O. tremulina Lamarck 1811." End quote. The Am. Mus. Nat. Hist. collections contains some assigned to O. concinna. One set, #71967 bears this name from Philippines by the label, but this is the light spotted form figured by Reeve as O. olympiadina Duclos, but also = tremulina. Another set noted in Am. Mus. collection is #24633 and 9597 Philippines, and labelled O. sericia tenebrosa Marrat . The specimens are a brown color form of tremulina. We placed O. tenebrosa Marrat = O. tremulina.Other sets in Am. Mus. Nat. Hist. are labelled O. tremulina and are typical, # 9513, E. Indies; #9588, Ceylon; # 9593,9597,9586 are all typical from Philippines.
Thiele, 1925, in Tiefsee Exped. listed the species from the Seychelles.

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Oliva truncata Marrat,1867 Ann. Mag. Nat. Hist.,vol.20 (3rd. series) p.215. The different species assigned to this name in the large collections is next to fantastic. In our preliminary outline we followed Tryon who placed it in the synonymy of Oliva julieta Duclos of the Eastern Pacific. This is certainly error. Tomlin's study of the type in the Liverpool Museum accepted the species, " Holotype only. Cape of Good Hope. 36 mm. x 18 mm." End quote. We examined one set in the Acad. Nat. Sci. Phil. # 111779, Cape of Good Hope, John Ford Coll. The specimens in this set have the form and spire of O. elegans but the pattern is unusual, perhaps close to the pattern of typical O. mustellina from Japan etc. However, our conclusion was to assign these shells to Oliva elegans Lamarck,1811 with a question. This is but one set and it would be necessary to see additional material to determine two things, first, is the locality correct from which they came, and second they might even be a distinct species. Some others labelled with this name may simply be dismissed, as Acad. Nat.Sci.Phil.,#45396,Liberia which is an Olivancillaria , and or #15942, Cape of Good Hope which is O. ispidula(Linnaeus.). Conclusion: ? = Oliva elegans Lamarck,1811.

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Oliva pintamella Duclos,1835 Monog. Oliva, pl.33,figs.7,8
Dautzenberg thought this to be a distinct species and not to be confused with O. pintamella Duclos,1844 , in Chenu Ill. Conch. p.23,pl.35,fig.9,10. which = O. sanguinolenta Lam. We are unable to follow and consider both figures = O. sanguinolenta. ?

Oliva neostina Duclos,1835 Monog. Oliva, t.19,f.--11-16
We have deferred making a decision regarding this species because until recently we have had no specimens seeming to match the characters mentioned and figured, and a large part of the specimens we have seen so labelled are in our opinion O. mustellina Lam. However, we have recently received a lot of specimens from Mozambique, Portuguese East Africa, and some of these we have assigned to this species. We have decided to admit it.

Tryon, Man. Conch.,vol.V,p.78,pl.22,figs.15-20 describes the species as follows," Somewhat less cylindrical than O. mustellina and larger; color varying from light yellowish white to chocolate, the lighter varieties with zigzag brown lines; aperture white or slightly bluish within. Length 1.25-1.5 inches. Australia, New Guinea. ..This bears some resemblance to the preceding (O. mustellina), and is more closely related to the following species, of which it may possibly be a minor variety. I am not at all satisfied as to its claim to distinctness. O. octavia Duclos (fig.15) is usually considered synonymous." End Tryon quote.
Weinkauff,1878 Species 24, accepted the species. Wk. 27,4-6-
Neu-Holland, Neu-Guinea.
Marrat, Thes. Conch.,figs. 153,154

A set that may be of this species is Acad. Nat. Sci. Phil., #104787, Australia labelled O. octavia Duclos,1844. ??

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Oliva hieroglyphica Reeve,1850 Conch. Icon.,pl.24,fig/68
We have seen no specimens assigned to this name. It is probably a form of another species, and from the figures in Reeve, and Tryon, who copies Reeve, we are unable to place it and leave it ' status uncertain.'. We give Reeves description as follows, " The Hieroglyphic Olive. Shell oblong,rather swollen round the upper part,spire slightly acuminated, columellar plaits numerous, distinct; ivory white, shining,encircled by three rows of pale hieroglyphic marks. Hab.---? Amply distinguished by its peculiarities of form and marking." End Reeve Quote.

Tryon,Man. Conch., vol.V,p.84,fig.9,pl.31," Ivory white,encircled by three rows of pale brown hierogryphic markings. Length .6 inch. Habitat unknown. A doubtful species.

If a search for this were warranted it is suggested that the small specimens of species of Olivancillaria might be studied.

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Oliva hirasei Kuroda and Habe,1952 Check List and Biblio. of Recent Mollusca of Japan. Tokyp. Name for Hirase, 1909, Conch. Mag. 3, pl.4, f.26.

We have seen no specimens of this species. From the figure in Kira, and from Hirase, it must be very close if not identical with a form of Oliva tremulina Lamarck,1811. At this time we lave it ' status uncertain'.

* * *

Oliva caroliniana Duclos,1835 Monog. Oliva, t.19,f.5-8
In our preliminary outline we placed this name in the synonymy of O. mustellina Lam. However, we are uncertain about an assignment at this time. Weinkauff,1878,Species 19, accepted the species. Marrat in Thes. Conch.,figs. 73,74. Weinkauff, 32,8,9.

Sets in the major collections are of interest. Acad, Nat. Sci. Phil.,#15855, Singapore. Specimens are more bulbous than mustellina , spire more exserted. # 104782, Mauritius is the same. We have in our collections specimens of the same type assigned to a related species, but reserve a conclusion until more material has been examined.

The Operculum in the Olividae

The systematic importance of the presence or absence of an operculum is an interesting subject. This character is not consistently in accord with either the shell or the radula. There are many, but a few examples of this puzzle will suffice.

Olivella lepta (Duclos 1835) var. fulgurata Adams and Reeve, 1848. This species has the shell form and the radula of Olivella but lacks an operculum.
Olivella nivea (Gmelin 1790) lacks an operculum, and (fide Olsson 1956) it is probable that other species of Olivella s.s. are also without opercula.

True Oliva is said to lack an operculum.
The group of species long known as Olivella including jaspicea (Gmelin 1791), blanesi (Ford) 1898, miris Olsson 1956, were placed in the Olivinae by Olsson as genus Jaspidella on the basis that the species have a radula nearer to Oliva than typical Olivella, and yet the species have the shell form of Olivella , and do have an operculum.
The same may be said of Olivella brazieri Angas, placed by Peile in a genus Belloliva.

The type species of Olivancillaria, O. brasiliana (Lamarck 1811) = O. urceus (Röding 1798) has an operculum.
The type species of Agaronia Gray 1839, A. hiatula (Gmelin 1791) has an operculum.
There are other species that seem to bridge the gap completely between the above two ' if based on shell characters'.
We recently received a lot of the species gibbosa Born 1778 from the Gulf of Mannar. Basing our conclusion on shell characters and following the great majority of authors, we united this species with others under Olivancillaria. However, However, gibbosa definitely does not have an operculum. We have the soft parts in alcohol and expect to compare the radula with those of brasiliana and hiatula.

The advice of others is solicited. It has been our thought that the most useful system of classification should be based upon wide genera and narrow subgenera, but this should be tempered with reason, and we are not urging the retention of animals that differ markedly in the same genus.

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The Conchological Club of Southern California
Minutes Sept. 1,1959

The meeting, at the home of Mr. and Mrs. Crawford N. Cate, was called to order at 7:45 P.M. by the president, Dr. Donald Shasky. There were 52 members and guests present. The minutes of the Aug.4 meeting were approved as read.

Dr. Homer King told of the recent trip he and Mrs. King and a 13 year old grandaughter made to the Hawaiian Islands. They had left June 23 and returned Aug.7. They did very little collecting but did manage to visit the three islands of Hawaii,Maui and Oahu.

Dr. Donald Shasky had been diving off San Clemente Island on Aug. 30 and found the bottom almost a desert-shellwide.

George Kanakoff reported on his digging activities Aug.3 through 10 at LACMIP site 305. During that week he dug and transported to the L.A. County Museum over one-half ton of material from this Pliocene deposit- the San Diego Formation. In this he had so far found five new genera and numerous new species. The material will ultimately be studied by Dr. Leo Hertlein, Calif. Acad. of Science.

It was reported that Sandra Delp was still on Canton Island, but was planning to visit several other south Pacific paradise spots.

Drs. Bruce Campbell and Donald Shasky intended to head for Puerto Penasco and St. George Island, 30 miles to the south, on Sept. 4. Ruth Shasky had just completed a SCUBA diving course and had descended to 90 feet with her instructor.

Rose Burch informed the group that during the past month Mr. Edwin Bryan, Director of Collections, Bishop Museum,Honolulu and Dr. Tadashige Habe,Amakusa Marine Biological Station, Japan had been house guests at her home. Mr. Bryan was here to see about cabinets and other items for the Bishop Museum, and Dr. Habe was on his way to the International Oceanographic meeting in New York.

John Burch reviewed recent publications by William Emerson and Emory Chace, Bernard Cotton, and Bruce Halstead. John Fitch reported upon a second section to Barnard's treatise on South African mollusks and Crawford Cate showed the group a copy of Allison Kay's thesis on " Systematics of Cypraeidae" that he had borrowed from a friend in Honolulu.

Crawford Cate presented the program of the evening- a report on the Peli Expedition as gleaned from letters written by one of its principal participants, Mr. Cliff Weaver. The expedition,sponsored by Mrs. Muriel King, is utilizing a converted 65 ft. Navy crash boat, the Miss Honolulu for dredging around the various islands. The dredging got under way in mid April and through the end of June was primarily at depths shallower than 300 ft. Up until then the most productive depths seemed to be at 100 to 150 ft.The dredge weighing over 1000 lbs. when filled,would be hauled over rubble or coral bottoms for about 5 minutes before pulling it up; in mud or sand it would be hauled for 15 minutes. 15 to 20 minutes were required to sort the material taken in each haul.The two most common shells, both sand dwellers, were Mitra exasperata and Terebra gouldii.

A fair number of new species have been taken, especially cones, and there have been new depth records, range extensions and so on. During August some dredging was done as deep as 720 feet. During the early stages of the work Cliff Weaver rode the dredge on several occasions while wearing SCUBA diving gear. In that way he was able to determine through actual observation, the best pulling angles for different bottom types and see exactly what was happening.As a result he determined that on a sand bottom the dredge

(con.)

worked most efficiently when the towing cable was at an angle of 40° off the bottom. In coral and rubble areas the best angle for the ~~t~~ towing cable was 25 degrees. The angle was adjusted by paying out or taking in cable depending upon bottom type.

After this very enlightening paper was completed at 9.:10 P.M. Rose Burch introduced the guests who were present.

It was announced that Mr. Robert Alexander, a former member, had recently passed away at his home in La Mesa. A sympathy card will be sent to his wife.

The meeting was adjourned at 9:15 P.M. and Mr. and Mrs. Cate furnished refreshments and invited all present to view the extremely fine collection of Hawaiian shells, many from the Pali Expecition, that had been placed on display.

Respectfully submitted, John E. Fitch, Secretary

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International Commission On Zoological Nomenclature c/o British Museum (Natural History), Cromwell Road, London S.W. 7 England. A letter received Aug. 12,1959 states that the Trustees of the British Museum have allocated accomodation for the Commission's office in the museum. Members of the Commission and correspondents are asked to note the new address of the Commission's office. N.D. Riley, Honorary Secretary.

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Dr. A. Myra Keen has written that the operation of her mother was satisfactory and we are very happy to report that she is now recovering. We were all concerned about her illness while at the AMUPD meeting in Redlands.

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The Burches had the pleasure of having as house guests Mr. and Mrs. Pat Kauanui. Pat is stationed on the island of Wake and returned to duty after his vacation here. Mrs. Kauanui (Jean) is now at the Scripps Institution of Oceanography, La Jolla.

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We have heard so much from the Cates that we are looking forward with great interest to the results of the dredging expeditions around Hawaii sponsored by Mrs. King and so actively worked by Cliff Weaver and others. There seems to be no doubt that they have ~~take~~ collected many new species. It is hoped that the results will be published without undue delay. A comprehensive work on the gastropods of Hawaii has long been needed.

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PUBLICATIONS

A Natural History of Inhaca Island, Mocambique Edited by William Macnae and Margaret Kalk. Witwatersrand University Press,Johannesburg,1958. This book is something of a symposium with 10 or more professional collaborators. A cloth bound quarto volume well illustrated with numerous plates. Both the fauna and flora are covered.

The chapter on the Mollusca is by Dr. Macnae and is illustrated with four plates showing numerous species on each plate. Mocambique is a province of unusual interest to some of us because of the fact that a great many specimens of unusual interest have been coming from there to collectors and students in this country.

The book may be purchased from the University Press in Johannesburg, or may be had from John Q. Burch (now in stock) at $9.00 .

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Barnard, K.H.- Contributions to the knowledge of South African marine mollusca. Pt. I. Gastropoda: Prosobranchiata: Toxoglossa. (With 30 figures in the text and 1 plate). Annals of the South African Museum, Vol. XLIV. May be had from the So.Afr.Mus. 15/ or ordered postpaid from John Q. Burch for $4.00.

This is a scholar;y work and seems to be the first attempt at a comprehensive coverage of the fauna of South Africa to be published in many years. The references and the synonymy are well presented. The figures and text explanation are designed to assist the reader to note the distinguishing characters of the species. This part is the first of a series. pp.73-163. Part I covers the Turritidae and the Terebridae.

- do- Part II Gastropoda: Prosobranchiata; Rhachiglossa. (With 52 figures in the text). pp. 1-256. May be had from the So. Afr. Mus. 46/ or from John Q. Burch postpaid for $9.50.
This work covers the Marginellidae,Cancellariidae,Volutidae,Mitridae Fasciolariidae,Nassidae,Volemidae,Buccinidae,Olividae,Pyrenidae, Rapidae,Muricidae.

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The Nautilus, Vol.73, No. 1, July,1959

A new Beringius from the Pacific northwest, with comments on certain described forms. By Allyn G. Smith.
The new species is Beringius eyerdami dredged at various times off Cape Flattery, Wash. Holotype in Calif. Acad. Sci. This is a carefully written diagnosis of related species, pages 1-9 and illustrated with four full page plates.

A new marine gastropod from West Mexico by James H. McLean. The new species is Decipifus gracilis from off Guaymas,Mexico.

Notes on the feeding of Melongena corona by Ruth D. Turner

Snails from upper penninsula of Alaska with feeding habits of Brooks Lake fishes by Branley A. Branson and William R. Heard.

A method for full relaxation of muricids by Melbourne Romaine Carriker and John W. Blake.

Land snails from Maryland and Virginia by Wayne Grimm

Thysanoteuthis rhombus, large cephalopod new to the Western Atlantic by Gilbert L. Voss and Donald S. Erdman.

Xanthonychidae (Pulmonata) by H. Burrington Baker.

Studies on the genus Melampus (Pulmonata) by Paul A. Holle and Clarence F. Dineen

The generitype of Nenia H. and A. Adams by Joshua L. Baily Jr.

Leaflets in Malacology, Vol. 1,No. 17,July 29,1959.
7 pages.
Comments on some trivaricate muricines by S. Stillman Berry.
(con. in #18). A new genus is described for the single species Murex leanus Dall. Calcitrapessa .

Notices of new Eastern Pacific Mollusca by S. Stillman Berry
Leaflets in Malacology, Vol. 1, No. 18.

1. Botula cylista new species Rocks at Las Gaviotas Beach near Mazatlan, Sinaloa; boring in Ostrea iridescens Hanley.
2. Spondylus ursipes n.sp. Isla Angel de la Guardia.
3. Galeomma (Lepirodes ?) mexicanum n. sp. Dredged 3-4 fms. no. entrance to Bahia San Luis Gonzaga, Baja Calif.
4. Diodpra pusilla n. sp. 6-10 fms. off Acapulco, Mex.
5. Lucapinella milleri n. sp. Puertecitos, Baja Calif.
6. Nomaeopelta myrae n. sp. Rocks at Las Gaviotas, near Mazatlan
7. Thyca (Bessomia) callista n. sp. Bahia San Carlos, Sonora, Mexico; parasitic on the starfish Phataria unifascialis Gray.
8. Cantharus shaskyi n. sp. Off Guaymas, Sonora, Mexico.
9. Hanetia mendozana n. sp. 10-25 fms. region Magdalena Bay, Mex.
10. Terebra (Strioterebrum) puncturosa n. sp. 15 fms. Bahia Santa Maria, Isla Magdalena, Baja Calif.

Basteria Vol.23, Supplement 1-VII, 1959. This is a cloth bound volume in commemoration of the 25th anniversary of the Netherlands Malacological Society. Theme- The Netherlands as an environment for molluscan life.
This is a symposium with some 15 or more collaborating.

Coelomic Corpuscles of Echinoderms by Richard A. Boolootian and Arthur C. Giese. Biological Bulletin, Vol. 115, No.1, pp.53063, Aug.1958.

Journal de Conchyliologie Vol.XCIX, Nos. 2, Mai and 3 Juillet 1959. Some of the interesting papers will be listed below.
Heterostrophie par A.Pruvot-Fol. Ill. 3 figs.
Jujubinus strigosus (Gmel.) sur la cote nord D'Espagne par F. Fischer-Piette et J.M. Gaillard- Fig. of the radula.
Etude et Reclassement Du Genre Thapsia et Desc. D'Une Nouvelle Especies par Roland H. Raemaekers. Thapsia (Megathapsia) dartevellei n. sp. Belgian Congo Illustrated.
Mollusques de la plaine cotier' soulevee de Guadalupito recoltes par M. Bernardo Boit par Gilbert Ranson. Being species of the Pacific coast this list is of unusual interest to us.
Catalogue des types et examplaires figures, conserves dans la collection de l'Ecole des Mines De Paris par P.H. Fischer
La Collection de Chemnitzidae du Marquis De Folin au Mus.Nat. D'Hist. Nat. Desc. de Turbonilla corpulens . Catalogue des especes publiees par De Folin... par B.S. Kisch
Deux cas D'Helix pomatia unicornes par E. Fischer-Piette. Ill.
Henri Gouin et les malacologistes de L'Afrique mineure notice sur la collection Gouin par Francis L labador

****

Fisheries Newsletter- Australia, May, 1959. Note a lengthy article about Fall in Pearl Shell Production. Nevertheless it is of passing interest that the production of Mother of Pearl for 1957 was 1,839 tons, 1958 was 1,284 tons. Trochus production is on a decline but rather impressive to mere shell collectors in any event. 1954-1,138 tons; 1955-945 tons; 1956-853 tons; 1957-548 tons; 1958-420 tons.
This industry averages to employ over 1500 men, and something under 150 vessels.

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Just Arrived- ***** Pectinidae of the Eastern Pacific by Gilbert Grau. Allan Hancock Expeditions, Vol.23- A superb work, will be a ' must' for all. 308 pages and 57 full page plates. $4.50 and in stock by John Q. Burch- A proper review in a later issue.

MINUTES 193

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Belloliva Peile,1922 Proc. Mal. Soc. Lon.,vol.15,p.18
Type by original designation, Olivella brazieri Angas,1877

In Minutes 184, p.19, Jan.,1959, we quoted the complete brief original description of Peile. A question was presented to those interested. Is it of greater systematic advantage to consider Belloliva a full genus of the family Olividae, a subgenus of the genus Oliva, or a subgenus of the genus Olivella ?

The shells resemble Olivella in form, and the species involved have been so assigned until recent years. Conservation would indicate a continuation of the reference to Olivella with Belloliva as a subgenus.

For the other side of the argument it may be stated that the group are operculate, a character not usually associated with Oliva. Nevertheless, there are other species with the radula of Olivella that are also inoperculate. Several of these have been discussed. One example is the form we covered in Min.191,p.10, the variety fulgurata Adams and Reeve,1848 of Olivella lepta (Duclos,1835).

Peile has figured the radula and found it (in part) close to that of Oliva. Thiele accepted Belloliva as a full genus of the Olividae, and complicated the matter to some extent by describing Olivellopsis Thiele 1931, as a section of Belloliva with type species Olivella simplex Pease,1867. This may be simply solved by the following arrangement if thought preferable, Genus Olivella Swainson 1831, subgenus Belloliva Peile 1922,section Olivellopsis Thiele.

Species of this group will be briefly discussed below. The monumental foul-up in the generic splits in this family is well demonstrated by these. Peile based the genus upon two species,Olivella brazieri Angas 1877 and Olivella pardalis Adams and Angas 1863. Iredale 1924 described another genus Gemmoliva with type species Olivella triticea (Duclos,1835) = Olivella pardalis Adams and Angas 1863, and there is a general disagreement regarding the species.

Olivella exquisita Angas 1871 Pro. Zool.Soc. Lon.,p.13,pl.I, fig.2.

Tryon, Man. Conch., vol.V,p.71,Pl.17,figs.32,33,41, described the species as follows," Brownish yellow, with three rows of rather distant irregular chestnut maculations, connected by undulating longitudinal lines, which cover the fasciole. Length, 8-12 mill. N.S. Wales,Australia. ..I think it is almost certain that O.brazieri Angas (fig.41) , is merely a larger,less distinctly marked variety of the same species." End Tryon quote.

There is a set in the Burch collection from Port Jackson, N.S.W., Australia, labelled Olivella exquisita Angas,1871 ex. H.S. Mort. Material in the collection of the U.S. National Museum is far from convincing. Set # 125177 labelled O. brazieri Angas, is in our opinion identical with O. exquisita, if, indeed, these two are consistently separable. There is a set in the Calif. Acad. of Sciences labelled O. brazieri, 60 fathoms off Montagi Island, New South Wales, Australia, ex. H.S. Mort. It is just possible that the body whorl is slightly more obese in this set.

Olivella leucozona Adams and Angas 1864 Proc. Zool. Soc. Lon., p.422, pl.37,fig.23

Tryon, Man.Conch., vol.v,p.72,pl.17,fig.45," Yellowish brown, longitudinally reticulated with chestnut, with a bluish white band above the fasciole,tinged with chestnut at the base. Length 15 mill. Port Jackson,Australia, 6 fathoms. Besides the (con.)

difference in painting, this species has a longer spire and is larger than *O. triticea.* " End Tryon quote.

Weinkauff lists and figures. Marrat, Thes. Conch.,fig.456 Weinkauff, 39,13.

Some of the material of this species examined are, #20966 in Acad.Nat Sci. Phil, and others. Several sets in the Burch collection from Port Jackson, NSW, Australia. Set in Calif. Acad. Sci. from Port Jackson, ex. H.S. Mort. One set in the Burch collection is ex. Hugh Fulton. Set #2343, Stanford University seem to be typical. Set #162136 in the U.S. Natl. Mus. ,Sydney Harbor is labelled *O. leucozonias* (Gray) no doubt in error for *O. leucozona* Adams and Angas. Some material in the San Diego Museum, labelled the same from Tasmania. As Tryon mentioned, the shells of this species are of more or less the same pattern as *O. triticea* ,but are more robust with a longer spire.

Bernard Cotton follows by placing this species under Belloliva but has *O. triticea* with *O. pardalis* under Gemmoliva Iredale 1924.

Olivella simplex Pease 1867 Amer. Journ.Conch.,III,p.281,pl.23, fig.24

Tryon, Man. Conch., p.72,pl.17,figs.47,48," Pure white,shining. Length, 4-5 mill. Upolu and Tongataboo,Polynesia." End quote. " O. nitens Dunker (fig.48) is a synonym."

There is some question about the *O. nitens* Dunker. Dautzenberg comments," Localitie -Tuamutu (Pease). L'Olivella nitens Dunker parait bien etre synonyme de cette espece, comme l'a suppose Tryon." End quote.

Weinkauff, 1878, p.162, Paumotu, Tahiti. Wk. 39,8,9. Upolu. Marrat,Thes.Conch.,figs.388,389.

Olivellopsis Thiele 1931 as mentioned above was described as a section of Belloliva with *O. simplex* Pease as type species.

Some of the material noted, Set #123421, U.S. Natl. Mus.- all very small white shells, maximum about 10 mm. Set in the Calif. Acad. Sci., Gifford Coll.,Mauritius, ex. Rene Viader. Very small white specimens, less than 8 mm.

****

Bernard C. Cotton,1955, lists the following group as, *Gemmoliva* Iredale 1924. *G. triticea* Duclos,1835 (type species) = G. pardalis Adams and Angas 1863, Vict., N.S.W. G. *adelaide* Tate 1889, fossil, Adelaide Bore, S.A.

Thiele,1931, H andbuch, placed Ge*mmoliva* as a subgenus of *Belloliva.*

Olivella triticea (Duclos,1835) Hist. Nat. Coq., pl.1,figs.5,6 Tryon, Man. Conch.,vol.v,p.72,pl.17,figs.42-44," Yellowish white, with three revolving rows of chestnut-brown maculations. Length 10 mill. New Guinea(Duclos); Port Jackson,Australia, 5 fms. (Ad. and Ang.). O. pardalis Adams and Angas (fig.44) is a synonym." End Tryon quote. Reeve, Conch.Icon.,pl.27,fig.82,a,b " The Wheat Grain Olive. Shell somewhat fusiform, spire much exserted,columella obscurely one plaited at the base,callously twisted;whitish, conspicuously tessellated and streaked with red brown. ..Distinguished by its elongated form and blotchy tessellated painting." End Reeve quote. Weinkauff,1878, 37, 1,2,17,18 Neu Guinea. Marrat, Thes.Conch.,fig.439. Sowerby Thes.Conch. note re fig.439, " Three rows of large dots characterize the species."

Some of the material examined- Sets from NSW,Australia in the Burch coll. Set in Calif. Acad. Sci.,Gifford Coll.,Port Jackson NSW,Es.H.S. Mort. U.S. Natl.Mus. #203901,Victoria;162135,Sydney..

Olivella pardalis Adams and Angas,1863 Pro. Zool. Soc.Lon., p.422, t.27, fig.3

Tryon placed this name in the synonymy of O. triticea (Duclos) 1835. Weinkauff,1878, 38,11 recognized the species. Marrat,Thes. Conch., fig.427 recognized it. Sowerby in comments Thes.Conch. stated re. Fig.427, O. pardalis " ...Very closely resembling O. triticea Duclos, but the columella appears to be less acuminated at the base."

Some of the material noted that has been assigned to this species are several lots in the Burch collection. #2894 in the Acad. Nat. Sci. Phil., from Port Jackson, NSW,Australia- a set in the collection of the Am. Mus. Nat. Hist. labelled Victoria, Australia. These shells are about 10 mm. x 4 mm. , three bands of broken dots. These specimens fit every character of O. triticea. Conclusion- O. pardalis = O. triticea.

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Cuspidoliva Iredale 1924 Proc. Linn.Soc. N.S. Wales, p.259, vol xlix Type by original designation, Olivella nympha Adams and Angas,1863

Our conclusion is to admit Cuspidoliva as a subgenus of Olivella. In fact, our intention is to endeavor to retain broad genera with narrow subgenera and sections. However, for the record we will give the complete outline of this group.

" The teeth of brazieri may be compared with those of Oliva, whereas the general features of the radula of nympha are those observed in Olivella. There are minor differences but the obvious distinction is in the form of the central tooth or rachidian. In brazieri this is tricuspid like that of Oliva while that of nympha is multicuspid,recalling that of the American Olivella. Oliva has, however, no operculum whereas Olivella possesses a well-formed operculum , which is seen in both brazieri and nympha ---- We then see in Belloliva an Olivella which is operculate but has developed an Oliva radula. As noted above exquisita Angas from shell characters may be placed in Belloliva but pardalis Adams and Angas = triticea Duclos ,differs a little in shell characters as also in radula features, though generally agreeing with Belloliva , and the differences may be indicated by a sub-generic name Gemmoliva. However,nympha, which Peile showed to have the general radula features of ~~the~~ American Olivella and must be named generically, the genus Cuspidoliva being proposed for it as type. This species apparently shows great variation in size and shape, and my series suggests that Verco's solidula may be the Adeladddean representative of nympha though it was not compared with that species." End quote.

Bernard C. Cotton,1955 outlines the species of Cuspidoliva as follows," C. nympha Adams and Angas 1863 (type species),S.W.A. Vict.,N.S.W. (type), Q. C. solidula Verco1909, S.A. 55 fms.(type). C. nymphalis Tate,1889, fossil, Jemmy's Point. Vict.".

Olivella nympha Adams and Angas,1863 Pro. Zool. Soc. Lon.,1863, p. 422.
Tryon, Man. Conch., vol.v,p.72,pl.17,fig.46," Spire elevated; semipellucid white,with an opaque white band at the suture. Length, 10 mill. ..Port Stephens, N.S.Wales, 5 fathoms (Angas); Mauritius (B.S. Lyman); Sydney, N.S. Wales, 25 fms. (Brazier)." End quote.
Marrat,Thes.Conch., IV, p.37, pl.xxiv,fig.426- N.S.W.
Weinkauff, Conch. Cab., 2, ed.,p.150,pl.28,fig.10-Port Stephen
Melvill & Standen. Shells fr Lifu.III,p.404
Hedley. Mar. Fauna of Queensland. Ass.adv.sci.,p.363 (con)

Dautzemberg,Ph.,Journal de Conchyliologie, vol.lxxi,1927, (lists as Oliva)
May and MacPherson,1958, Index Shells of Tasmania (lists as Cuspidoliva with comment " North, small and white."
Axel A. Olsson, Acad. Nat. Sci. Phil.,vol.cviii,1956,p.217
Some of the material examined- Several sets in the Burch collection from N.S. Wales; set in the San Diego Museum from Tasmania; Stanford University collection, # 2342; Calif. Acad. Sci.,Gifford Coll., Port Jackson, N.S.W.; Twofold Bay, N.S.W., ex. H.S. Mort; set #42495 in U.S. Natl. Mus.;Victoria, Australia #203902. Am.Mus. Nat Hist., #9915, Mauritius. These shells are close to the specimens from N.S.Wales,Australia but are not as elongate-? ; #9913, Pt. Jackson,N.S.W. -shells are typical.

Olivella solidula Verco,1909 Pl.xxv, figs.7 and 8 Pt. XI,Trans. & Proc. Roy.Soc. of Australia. The original description follows, " Shell small, solid,shining white, smooth,obliquely elongate oval. Apex blunt,four whorls, sloping convex,suture well chanelled. Aperture oval, contracting gradually to a linear gutter posteriorly, widely open in front, and notched; outer lip simple, smooth; inner lip is a narrow, thick glaze over the base to the suture, slightly spreading over the columella. Diam. length 6 mm.; of body whorl 4 mm.; width 2.3 mm. Locality- Type from 55 fathoms off Cape Borda, with 1 other. Backstairs Passage, 22 fathoms, 3 specimens; Gulf St. Vincent (?) depth, 3, none alive;Venus Bay Beach, 1. Diagnosis- It differs from O. triticia Duclos in having fewer whorls, being mpre solid, not so contracted anteriorly, and in not having a wide callus winding from the inner lip over the front of the dorsum; from O. exquisita Angas, which it closely resembles, in being smaller, narrower and pure white." End Verco quote.

****

Ramoliva Cotton and Godfrey,1932 The South Australian Naturalist, vol.xiii, no.2, p.54.
Ref. Minutes 187, p.3 in which we gave the original description of the type species , Olivella adiorygma Verco,1909.
The original description of Ramoliva follows, " Small,obliquely elongate-oval; smooth; spire elevated,conic,rather less than half the height of the shell; protoconch paucispiral, blunt,oblique; adult whorls few, flatly convex; suture linear, not canaliculate; mouth oval, narrowed above, widely open below, shallowly notched; outer lip ascending at the suture, simple; columella without folds. Type- Olivella adiorygma Verco 1909. Differs from Baryspira in the absence of a canaliculate suture." End quote.

****

Olivella pulchella (Duclos)1835 Monog. Oliva,pl.5,figs.11,12
One of the problems in a study of this species or group is to decide whether O. leucozonias (Gray) 1836 is separable.
Tryon, Man. Conch., vol.v,p.71,pl.17,fig.40," A solid shell, sparingly marked with zigzag brown lines, and maculate below the suture. Length , 18 mill. Cape Blanco, W. Africa...A doubtful species from a doubtful locality. Weinkauff considers it identical with O. leucozonias Gray , with which it appears to me to have but little in common. To me it looks more like a worn specimen of O. dama." End Tryon quote. We are unable to agree with Tryon's conclusion.
Maurice Lickles, Mollusques testaces marins de la Cote occidentale d'Afrique, 1950,p.110,fig.196, recognizes O. pulchella (Duclos) as the only species of Olivella known from that coast.

(con.)

Reeve,Conch.Icon.,pl.30,fig.98,describes the shell but assigns it to the West Indies and compares it with O. lanceolata with which we see little in common. With a beautiful series before us sent recently from Baie de Goree, West Africa , Dr. J. Marche-Marchad, we accept the species as the form from West Africa.
Reeve's description follows," The Pretty Olive. Shell acuminately oblong, rather swollen,spire exserted, columella arched,obscurely many-plaited; whitish, very delicately lineated and dotted in rows above and below with red-brown,unstained next the sutures. Hab.West Indies. ..The painting of this species is very similar to that of O. lanceolata, a smaller and more slenderly acuminate shell, but it differs in having spots invariably removed from the sutures." End Reeve quote.

Weinkauff,1878, recognizes O. pulchella but considered O.leucozonias (Gray,1836 to be in synonymy. " Gray, Beechey Voyage, 36,24 (O. leucozonias) Reeve 67,a,b (O. leucozonias) Marrat, figs.450-451 (idem.). Senegal,Gambia." End Weinkauff quote.
Olivella tenuis (Marrat) 1871 Thes.Conch.,Sp.165,p.32,Fig. 385. Tomlin's comments on the type in the Liverpool Museum were, " Holotype only. No locality. 11 mm. x 4 mm. Identical with O. pulchells Duclos,1835." End Tonlin quote. Tryon thought tenuis to be the young of Olivella gracilis (Broderip and Sowerby,1829). Another observation on O. tenuis is Sowerby, Thes.Conch., " 165, tenuis (f.385) Marrat-- As in Reeve's lanceolata , the row of spots under the suture does not touch it. The greater part of the shell is covered, almost reticulated with very fine flames." End quote. Note- the spots do touch the suture on the shells now before us from West Africa, but such a minor detail seems hardly important with all other characters in agreement.

Olivella leucozonias (Gray,1836) Zool. Beechey's Voy.,p.130, pl.36, fig.24
Reeve, Conch. Icon.,1850,pl.xxiv,fig.67,a,b, " The White Zoned Olive. Shell acuminately oblong, spire sharply exserted, columella many plaited, plaits fine,close-set; orange yellow, encircled with two distant narrow white zones, and promiscuously freckled and dotted with black, columella and interior of the aperture white. Hab. Senegal....Distinguished by a very peculiar style of painting, which consists of a uniform orange-yellow irregularly freckled and spotted with black,and encircled by two narrow white bands, one next the sutures, over which the black appears in larger freckles, and one a little above the anterior or basal zone." End Reeve quote.

Tryon, Man. Conch., vol.v,p.69, pl.16, figs.16,17 , " Orange-yellow, with zigzag chestnut lines and maculations, a white band at the suture, spotted with chestnut, and another white band below the middle of the shell. Length, 12-15 mill. Senegal." End Tryon quote.

Marrat, Thes.Conch., vol. iv,p.30, pl.25, figs.450,451

Weinkauff,1878, Martini Chem. Conch. Cab. Ed.II, vol.v,p.137, pl.35, figs.11,12 (Quoted above under O. pulchella (Duclos).

We are disposed to follow Weinkauff and place this name in the synonymy of O. pulchella (Duclos,1835) unless there is a definite error in localities. The specimens before us assigned to O. pulchella seem to us to fit all characters , and all of the material we have examined from West Africa fall into a uniform description. There are sets in most of the major collections assigned to both names seemingly without reason. For one example, #9957, Am. Mus. Nat. Hist., Senegal, Haines Coll. These are the same as those we have assigned to O. pulchra. (con.)

It is quite obvious that some authors have a very different concept of Olivella leucozonias (Gray,1836). We are uncertain about the species recognized by the following for example. Schepman, M.M., Prosobranchia of the Siboba Exped., part iv, Leiden, 1911, " Western entrance of Samau Strait, 390 m.,coarse coral sand with small stones; Sulu Archipeligo, 350 m,sand, 1 specimen; near Kei-islands, 397 m, greyish green mud, 3 specimens. The specimens seem to be more or less faded, though one from Sta. 59 contains the soft parts. I suppose Tryon is right when he writes (l.c.p.71) dealing with pulchella Duclos; Weinkauff considers it (pulchella) identical with O. leucozonias Gray,with which it appears to me to have little in common." End Schepman quote.

Conclusion- There is but one species from West Africa, and that is O. pulchella . Schepman and others with specimens from other provinces such as the Sulu Archipeligo have another species in hand.

****

Olivella apicalis Dall MS This species has never been described and is part of the material to appear in the work on the gastropods of Hawaii. The part on the pelecypods was published by the Bishop Museum years ago. There are numerous sets of this species from various deep water stations around Hawaii. Such names should probably not be mentioned until after they have been officially described and published/ Nevertheless, this name and others of a similar nature have appeared in check lists. It is to be hoped that the publication of the final work will not be indefinitely delayed.

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Olivella capensis Sowerby 1870 Thes.Conch.p.41,pl.25,fig.469
Said to come from the Cape of Good Hope. Tryon, Man. Conch. places the name ? = Olivella anazora (Duclos,1835). Weinkauff,1878, 39,14, accepts as a good species- Cap. der Guten. Hoffnung. We have not seen this species and have no comments to make.

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Olivella floralia Duclos 1853 Ref. Minutes 189,p.9
In our preliminary outline we followed Tryon in placing the following in the synonymy-
Olivella elongata Marrat,1871 Thes.Conch.,pl.22,figs.386,387.
Tomlin's comments on the types is of some interest because this name has been frequently used. " Eight probably syntypes. West Indies. Max. 12 mm. x 4 mm. Min. 8 mm. x 3 mm. Ave. 10.4 mm x 3.5 mm. There are two sets of this with four shells in each set. Tomlin's note in one box says, " There are two lots of this and I cannot say which are types. The smallest shell in this box is evidently Fig.387 (Thes.Conch.), but the others are much too large for Fig.386." " A note in the other box says " ? Type of species." End quote. Status uncertain.

Another conflicting note on this matter may be Tomlin's comments (as given by Ford) on Olivella lactea (Marrat,1871) ,Thes.Conch. p.30, fig.376. In Minutes 189, p.8, we followed Tryon and placed O. lactea in the synonymy of Olivella nivea. Tomlin's notes on the type of O. lactea in Liverpool follows," Seven syntypes. Egmont Key (on label). Max. 13 mm. x 5 mm. Min. 10 mm. x 4 mm. Av. 11 mm. x 4.5 mm. I should not say O. nivea (Gmelin) 1790, much more like examples of O. elongata Marrat." End quote. Status uncertain.

****

Olivella esther (Duclos,1835) Ref. Minutes 188, p.20
Many sets in the larger collections are assigned to this name. They embrace several species certainly. Status uncertain.

Olivella dealbata (Reeve,1850) Conch.Icon.,pl.35,fig.71
Ref. Minutes 189, pp.11-12.

A species that has caused us some investigation is Olivella pulchra Marrat 1868, Ann. Mag. Nat. Hist.,vol.2,(4th series), p.214. Tryon placed it in the synonymy of O. fortunei (Adams). However, Tomlin, in his studies of the Marrat types in Liverpool made the following comments which we accept," Holotype pnly. No locality. 6.5 x 3 mm. = O. dealbata Reeve."
Sowerby, Thes.Conch., comments re O. pulchra Marrat (f.429), " Remarkable for the large curved spots which festoon the margin below the suture."
Olivella scurra Marrat,1871 Thes. Conch., Sp.162, p.31, Fig.380. In Minutes 189, p.8, we placed this name in the synonymy of O. nivea (Gmelin). We are disposed to accept Tomlin's comments as follows in his study of the Liverpool type," Holotype only. West Indies. 9 mm. x 4 mm. = O. dealbata Reeve 1850." End quote.

****

Olivella fulgida (Reeve) 1850 Conch. Icon.,pl.36, fig.78,a,b
Reeve's original description follows," The Glittering Olive. Shell fusiformly onlong, rather thin and inflated, spire much exserted, base rather effused and truncated, columella arched, two-plaited at the base; white, very faintly wave-clouded with orange -brown, margined above and below with lines or small linear spots, basal zone callous,cream colored. Hab. West Indies. .. A delicately-coloured species, of which the basal zone is more than usually callous and of a clear cream-colour." End Reeve quote.

Weinkauff, 1878, 36,14,15 accepts the species.
Marrat, Thes. Conch., figs. 413,414. Tryon placed it in the synonymy of O. nivea (Gmelin), p.67.

Axel A. Olsson,1956, Proc. Acad. Nat. Sci. Phil.,vol. 108, p.199 states in his discussion of Olivella (Toroliva) goliath Olsson, that fulgida is probably related- is a West Indian species.
Sowerby comments, Thes. Conch., 185, fulgida Reeve(f.413,414), " Like O. gracilis in form but differing in the characters of the columella."

Some of the material examined- Set in the Burch collection from Puerto Rico; set in the San Diego Museum from the Virgin Islands. Large white shells, near 25 mm.

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Olivella gracilis (Broderip and Sowerby,1829) Ref. Min. 188,pp. -7-9.

Another of Marrat's species that has been something of a puzzle is his Olivella pulicaria Marrat,1871 Thes. Conch., Sp. 218, p.41, Fig.464. Tryon placed this in the synonymy of O. lepta (Duclos,1835). Weinkauff,1878, accepted it as a valid species. However, Tomlin, in his study of the type in Liverpool stated, " Holotype only. No locality. 14 mm. x 5 mm. A poor , worn and smooth example of O. gracilis Broderip and Sowerby,1829." We are disposed to accept Tomlin's assignment or simply disregard it as not identifiable.

****

Olivella alba Marrat,1871 Thes. Conch.,vol.4, p.32,no.169, pl.22, fig.349 (fig.390). Ref. Minutes 187,p.3

We discussed this species in Min. 187, and accepted the diag-nosis of Olsson, and it is so established as a species of the Pacific coast of Mexico and Central America.The fact that this species has been a matter of considerable confusion is an (con.)

understatement. It is our opinion that a good part of the great number of sets in almost all large museums labelled Olivella inconspicua C.B. Adams are of this species and the labels should be changed to alba Marrat. However, there are many other sets of juvenile specimens of other species labelled inconspicua. None of them seem to be the inconcpicua of C.B. Adams as figured by Dr. Ruth Turner and recognized by Olsson.

However, the last word may not have been said about alba Marrat. Tomlin was a very careful student of this family and his notes on the Marrat types in the Liverpool Museum follow," South America (on label). Max. 8.5 x 3.5 mm. Min. 6 mm. x 3 mm. Av. 6.7 mm. x 3.2 mm. Probably type lot of O. alba Marrat = O. oryza Lamarck 1811.(T.) Thes Conch. gives the locality as Guatemala.

******

Olivella micula Marrat,1871 Thes. Conch.,Sp.216, p.40,fig.468

In Minutes 189, p.13, we placed this name in the synonymy of Olivella minuta (Link,1807). We are probably in error. Tomlin's comments on the Liverpool types follow," Holotype only. No locality. 5 mm. x 2.5 mm. In the Thes. Conch. Alexandria is given as the locality for this species. Tomlin comments " It is, of course, an error; there are no Oliva or Olivella in the Mediterranean. It is an Indian Ocean species." End quote. We are unable to place the species from the figure in Thes. Conch. Therefore, status uncertain.

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Olivella miliacea Marrat,1871 Thes.Conch.,Sp.209, p.39,fig.441.

In our discussion of Olivella miriadina (Duclos,1835) ,Min.188, pp.12,13, we followed Weinkauff in placing Olivella miliacea Marrat in the synonymy of that rather controversial species. Tomlin's comments on the type of miliacea follow, " Four possible syntypes. West Indies. Max. 5 mm. x 2.5 mm Min. 4 mm. x 2 mm. Av. 4.5 mm. x 2.1 mm. ? Types of miliacea Marrat, but none of the four fits his size line. The species is obviously the young of mutica Say (T.) (The name is spelt milliacea on page 39, but miliacea on caption to the plate." (W.K.F.).

Sowerby, comments in Thes. Conch. " 209 milliacea (f. 441) Marrat " Resembles O. myriadina Duclos, but has two distinct folds on the base, the whorls are much rounder, and the suture wider and deeper." End quote. Status uncertain.

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Olivella pellucida (Reeve,1850) Conch. Icon., pl.27, figs.85,a,b

The original description follows," The Transparent Olive/ Shell oblong-ovate, thin,slightly inflated, spire exserted,columella arched, obscurely one-two plaited at the base;transparent horny, neatly painted with undulating brown lines, columella opake and callous at the base. Hab.--? Very prettily painted with broadly waved red-brown lines upon a transparent ground." End Reeve quote.

Sowerby, Thes. Conch., 198, comments, " Mr. Marrat's O. pulchra resembles this in most respects, but instead of the closely spotted band at the suture and above the belt, it has the horshoe shaped spots described." End quote.

In our preliminary outline we placed this name in the synonymy of O. lepta (Duclos,1835) fide Tryon. Observation of specimens assigned to O. pellucida (Reeve) in the large collections has indicated a surprising lack of agreement and certainly several different species are so involved. Many of them have a species from the West Indies so labelled. Most of these are juvenile specimens, glossy,slender,white band at base etc. True status of O. pellucida (Reeve) uncertain.

Olivella plana Marrat,1871   Thes. Conch.,,sp.219,p.5,fig.463
Our efforts to determine what this may be have failed to date. Tomlin's comments on the type in Liverpool is of little help. " Holotype only. No locality. 7 mm. x 3 mm. Merely one of the shorter, broader forms of O. oryza Lamarck,1811." End quote. Tomlin's reference to O. oryza Lamarck brings up a question, Olsson,1956, p.175 stated that Lamarck's description of oryza by itself is too brief for identification. However, the species as figured by Duclos and again by Reeve refer to the common Florida species, Olivella floralia (Duclos,1853). This is no doubt the assignment intended by Tomlin.

Tryon's description of O. plana Marrat follows," Shell white, solid,with a heavy callus deposit on the inner lip. 7 mill. Habitat unknown. ..This may be a white variety of the last species (O. tergina Duclos) , perhaps; it has no distinctive characters and M might readily enter several species.." Tryon, Man. Conch., vol.v, p.66,pl.14,fig.64. End quote.
Conclusion- = Olivella floralia (Duclos ?

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Baryspira P. Fischer 1883   Manuel de Conchyliologie, p.600
" Callosite' columellaire tre's développée en arrière;dépôt calleux recouvrante la totalité de la spire et atteignant profois une épaisseur considerable . (A.Australis Sby.;A.glandiformis Lam."

Our prelimianry outline of this group was made in Min. 183,pp. 9-22. We are disposed to recognize Baryspira as a subgenus of Ancilla Lamarck 1801. Type species, B . australis (Sowerby,1830) by subsequent designation, Cossmann,1899.

Cotton and Godfrey,So. Aust. Nat.,1932,p.52, describe Baryspira as follows," Elongately oval; axial growth lines, fine,crossed by dense spiral striae; spire short, the whole length covered by a thick callus; protoconch pointed, smooth, mostly hidden by enamel; adult whorls numerous,last flatly convex;suture hidden by enamel; mouth high,moderately broad, angled and canaliculate above, deeply notched below; outer lip thin, often with a minute tooth below at upper margin of fasciole;columella with several oblique folds below;inner lip thick, narrow,separated by a deep groove from the well marked fasciole which is somewhat excavate and more or less angularly plicate. Type- Ancilla australis Sowerby,1830 (New Zealand).

****

Alocospira Cossmann 1899   Essais de Paleo. Comparee, p.62, vol.3.
Type by original designation Ancilla papillata Tate (Miocene).
" Taille moyene; forme olivoide,un peu ventrue;spire peu allongee a galbe conoidal,incompletement recouverte par un e callosite assez mince, qui s'etend a peine au-dela de l'axe de la coquille; protoconche formant un minuscule bouton saillant;tours de spire subules,separes par une depression peu profunde quiindique la pos-ition des sutures sous le vernis, et ornes de sillons spuraux pl-us ou moins obsoletes, qui separent des cordonnets des peu saill-ants; dernier tour ovale,regulierement attenue en avant,non sillonne au-dessus de la limite du vernis, avec une zone non vernissee assez haute; une profonde rainure encadree de deux stries separe cette zone du limbe basal, qui est lui-meme divise en deux regions par une depression bien marquee,correspondant aux accroissements de la eschancrure. Ouverture peu dilatee,ovale au millei,anguleuse en arriere,tronques en avant par une echancru-re large et peu profonde; labre mince,presque droit, avec un denticule vis-a-vis du sillin inferieure au limbe;columelle (con)

un peu excavee en courbe reguliere,tronquee en avant, pres de l'echancrure,portant quatre plis obliques,inegaux et inequidistante le posterieur plus e[ais et plus ecarte;bord columellaire mince et peu calleux, sur lequel se prolongent parfois quelques-uns des sillons de la spire."

We recognize Alocospira as a subgenus of Ancilla Lamarck,1801.

****

Amalda H. and A. Adams,1853 Genera of Recent Mollusca, p.148
" Shell thin, not umbilicated; spire elongated, suture enamelled; inner lip simple. bicolor Gray, elongatus Gray, marginatus Lam., oblongus Sowerby, tankervillianus Sowerby."

Type by subsequent designation, A. elongata Gray,1847 = A.muscae Pilsbry,1926. Sandella Gray 1857 is a synonym.

We are accepting Amalda as a valid subgenus of Ancilla Lamarck.

****

Anaulax de Roissy 1805 Hist. Nat. des Moll.,Vol.V, p.432
" Ce genre ete etablie par M. de Lamarck sous le nom l'ancille (Ancilla) mais comme ce nom avoit deja ete employe depuis long-temps par M. Geoffrey pour designer les patelles fluviatilles, nous avons cru devoir y subdtituer d'anaulace forma de deux mots qui signifient " sans canal"...." End quote.

Anaulax de Roissy = Ancilla Lamarck.

****

Anazola Gray 1858 Proc. Zool.Soc. Lon.,Vol.26, p.50
" Shell ovate or subcylindrical;spire conical,sutural groove open to the tip. Aperture oblong, rather wide;pillar lip expanded; inner lip thickened, the whole length twisted and grooved in front. Belt broad, with an anterior groove in the usual place of the narrow belt.
Foot (A. subulata) elongate, longer than the shell,acute behind; the front half dilated,reflected over and covering the front and sides of the shell,front lobes semicircular,hinder angle acute. Tentacles short, broad. Eyes none? Operculum none. Duclos, t.31, f.1.2 " Type species by subsequent designation,Oliva acuminata Lamarck. Miocene- Recent (Warm Seas).

We considered Anazola to be a subgenus of genus Olivancillaria Orbigny 1839- Ref. Minutes 183,p.4 and Min.191,p.3. It should be mentioned that Thiele places it as a section of the genus Oliva (Thiele 1931,p.335). Again in Min.191,p.3, we doubtfully accepted Röding's name for the type species- O. acuminata (Lamarck) 1811= O. lutaria (Röding,1798).

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Ancillopsis Conrad 1865 American Jour.Conch.,Vol. I,p.22
A.atile (Ancillaria) C. Foss. shells of Tert.,p.24,t.10,f.2, Claiborne. Anolax gigantea Lea -Contrib. to Geol.,p.180,t.6, f.193.
A. scamba (Ancillaria) C. Foss. Shells. Tert., p.25, t.10,f.4, Claiborne.
A. subglobosa (Ancillaria)- ibid.,f.3 Claiborne
A. tenera (Ancillaria) C. -ibid.p.42, t.16,f.5.Claiborne. "

Cossmann,1899 stated that none of the above are in the Olividae. A.atilis is a Buccinanops- also A. scamba or a Bullia..p.45

****

Anolacia Gray 1857 Guide to Syst. Distr. of Moll.in the Brit. Mus.,p.26." Shell oblong,thin; spire short; outer lip thin,tooth-less; aperture large; axis imperforate.Operculum none.Foot very large." Type by monotypy Ancilla mauritians Sowerby
4 = Ancilla Lamarck.

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New Publications

Pectinidae of the Eastern Pacific by Gilbert Grau Allan Hancock Pacific Expeditions , Vol. 23. 308 pages, and 57 plates.

This is a book that will be a positive ' must' to all concerned with the fauna of the Pacific coast, and also for all others interested in systematic conchology.

The key to the Eastern Pacific genera and subgenera is well done, and well prepared keys to species are included in the treatment of all genera.

A number of new species are described. The bibliography is well done. The plates are clear and illustrate the character of the species clearly.

The price is $4.50 and is in stock for immediate delivery by John Q. Burch.

Marine Mollusca of Point Barrow, Alaska by Nettie Macginitie No. 3412- From the Proceedings of the United States National Museum Vol.109, pp. 59-208, 27 plates.

This is a genuine contribution and should be greatly appreciated. The author has made a detailed study of this Arctic fauna which, strangely enough, seems to tend toward a multiplicity of variants. The result is that a collector may frequently find that with a few specimens each will fall into a described species, but when the material is available in numbers they run together. The author has settled some of these problems with a common sense approach resulting in some rather extensive lists of synonymy.

The species are well described and compared. The plates are clear. The author states, " Of the 107 species and 11 varieties (exclusive of the new species) listed in the above table, 59 species and 7 varieties are new to Point Barrow, and of this number 36 species and 7 varieties are new to Arctic Alaska and 18 species and 4 varieties are new to Arctic America. Exclusive of the new species, only 4 are new to North America..."

We assume that this work may be obtained from the Superindent of Documents or the Smithsonian Institution.

Pleistocene Molluscan Notes I. The Bay Point Formation At Its Type Locality by James W. Valentine. Journal of Paleontology, Vol.33, No.4,July,1959.

This paper will be of unusual interest to some of us who have collected specimens from this formation at Mission Bay, San Diego County.

Turritella granti, A New Pleistocene Gastropod From Palos Verdes Hills, Calif. By James W. Valentine and Takeo Susuki. Journal of Paleontology, Vol.33, No. 4,1959. The new species is well described and illustrated, and the comparison with *Turritella cooperi* is clearly shown.

The Appearance of the Giant African Snail in Arizona by Albert R. Mead . Proceedings of the Hawaiian Entomological Society for 1958.

This is an interesting account of a man and his young son returning from a trip to Hawaii with live specimens secreted in the boy's suitcase. They seem to have stood the trip well, but after learning of the possible danger from them, not to mention the violation of law by their possession, they were destroyed, or that is to be presumed.

The Nautilus, Vol. 73, Oct.,1959, No.2. The following papers are to be seen in this issue.

An unusual occurence of Mya arenaria L. and notes on other marine mollusks By Arthur S. Merrill.

A new Beringius from the Pacific northwest with comments on certain described forms By Allyn G. Smith (Concluded).

Studies on the genus Melampus (Pulmonata). By Paul A. Holle and Clarence F. Dineen (Concluded).

Pleistocene Molluscan Notes By James W. Valentine.
II. Faunule from Huntington Beach Mesa,Calif.(Note- Part I of this series was mentioned above-Journ.Paleo.). This paper and others by the author are of great interest to those concerned with a study of the climatic conditions of the Pleistocene.

Mollusks of the Salt River,Kentucky By Joseph Rosewater.

On the Green Land Mollusk from New Guinea By J.B. Henrard.

Studies on Mollusk Populations :4 By R. Stohler
This is a detailed study of the variants of the California species Olivella biplicata (Sowerby). The population study is excellent. The conclusion that the variants named by Oldroyd and others are invalid confirms the conclusions of others.

The Charles M. Wheatley Collections by Richard I. Johnson.

Twenty-Fifth Annual Meeting of the American Malacological Union By Margaret C. Teskey.

Materialen zur Kenntnis der Zonitiden (Gastropoda) des Kaukasus und der Krim ..By Adolf Reidel. Annales Zoologici, Warsaw,Tom.XVII. pp 383-426, 2 plates, 14 figs.

Systematic Zoology, Vol.7, No.3. Of the papers in this issue of unusual interest, the following should be mentioned.

What is the Subspecies Problem?by A.Starrett. This is a thought provoking paper in which the author discusses a number of questions. A few excerpts may be of interest,"There is undoubtedly a fairly general acceptance of one or another of the " standard" species definitions with, perhaps, slight reservation concerning some point or other (see Mayr,1942; Meglitsch.., for summaries of the " standard" species definitions). Yet when one does begin to think at any length about the concept, he either has to make certain reservations or the result is a long definition with numerous qualifications(see further Nitecki,1957,for the paleontological implications of the species concept.)One simply cannot make a simple, all-inclusive definition of the species.How, then, can the subspecies concept be very objective if what is generally acknowledged to be the least subjective concept (as a taxonomic or biological unit) is a bit fuzzy around the edges?". And again in another part of the paper, " Consider, for instance,what would happen if an ichthyologist were to attempt to revise a genus of protozoans ! The basis systematic (biological!)problems of the two groups are so different that he would be forced to revise completely his taxonomic approach before entering into the undertaking..."

Othe papers of interest are, " The Synthetic Natural Populational Species in Biology by Hobart M. Smith- On Lectotype Proposals by David A. Young Jr.- The Question of Decline in Systematic Activity, Measured in the Marine Amphipoda by J. Laurens Barnard.

Late Pleistocene Invertebrates of the Newport Bay Area,California By George P. Kanakoff and William K. Emerson. Los Angeles County Museum, Contributions in Science, No.31, Oct.14,1959.
47 pages, 5 illus. A scholarly work, annotated lists,extensive bibliography. A formation of exceptional interest.

Recent vs. Fossil

By John Q. Burch

We have been compelled to consider this old contraversy in some of our recent published papers. Thiele and others have refused to accept the fossil names, and they have, in turn, described other names to replace those based upon the fossil. This leaves it to the student or amateur the unenviable position of having to make a choice. We are disposed to retain the names based upon the fossil, and consider it quite absurd to give another name to a species that is an abundant fossil and obviously of the same group. Nevertheless, there are eminent scholars of the opposite opinion. The problem is well stated by Dr. K.H. Barnard in his current series on the fauna of South Africa. His comments follow:
" Thiele (e.g. 1929, p.368) objects to the use of the name of a fossil genus for a recent genus, however much alike they may be concgologically . The anatomy of the extinct animal can never be known. This very sound principle applies equally to species. In the above mentioned case of *Cancellaria lyrata* the present writer considers it would be preferable to give the recent examples a separate specificc name. (* Perhaps a trinomial addition would meet the case, e.g. *Cancellaria lyrata vivans*). Zoogeographical conclusions based on the assumption that the fossil and Recent examples are conspecific may be erroneous and are certainly unscientific." End quote.

However, I am very much in accord with another statement made by Dr. Barnard, as follows," The present work admittedly shows some conservatism in retaining some of the old-established and well-known generic names in preference to adopting a more modern taxonomy, in which a multiplicity of genera has been founded often on characters which seem to be meagre or artificial. In the case of the Cowries this splitting-up has been carried to such a fantastic extent that, of the several hundreds of known species, *only one* remains in the original genus *Cypraea*. It seems doubtful whether this increasingly complex classification is of any real help to zoology, in particular to faunistic zoology." End quote.

It is fair to mention the fact that there are outstanding professional scholars who are openly discussing the possibility of abandoning the entire present system of classification in favor of a classification that might not be subject to the vagaries of every casual writer. In such an event it would seem that each major group would be obliged to establish a classification peculiar to the animals involved. It is difficult if not impossible for the scholar working with vertebrates for example, to fully appreciate the problems of the malacologist.

It must be obvious that the present trend in taxonomy in mollusks is far from stability, and rushing into complete chaos. It seems that most of the recent authors feel that there is something quite unprofessional involved if a species is called by a name known to any former publication. Gilbert Gray in his current book quoted P.P. Carpenter,1856, in his preface as follows," As human life is so short, and those who have the inclination for scientific pursuits have generally so little leisure, it is a serious evil when so large a proportion of that little has to be devoted to the labour of making out the errors of predecessors.".

****

Lloyd E. Berry
1892-1959

On October the sixth,1959, we lost a very dear and true friend with the passing of Lloyd E. Berry. A retired U.S. Army lieutenant who saw action in Siberia during World War I. His passing at the U.S. Government Hospital at Sawtelle was the result of service-connected disability.

Throughout his life Mr. Berry was actively interested in many subjects. At one time he studied and propagated cacti and succulents; had specimens from all over the world. Around 1940 he was seriously interested in gems and rocks. I have seen many of the fine specimens he once owned.

We, who have known Mr. Berry the last decade, knew him as a conchologist, who specialized in the Cypraeidae, having an outstanding collection. Few Cypraea collectors could equal his collection in quality, number of species, and number of specimens. Nor do I know of a private collection that was so well curated.

This fabulous collection was inherited by his surviving sister, Mrs. J.V. Yankie, 1804 Warwick Road,San Marino,California, and will eventually be for sale as a unit.

Mrs. John Q. Burch

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The Nick Katsaras Shell Auction

All reports indicate that Nick's shell auction was a smashing success. The fact that something over $1,200.00 was taken in within a short time seems to be self explanatory. Some of the prices will follow.

Voluta bednalli	$99.00	Conus aulicus	10.00
(Cypraea auranteum	65.00	Conus genuanus	25.00
Murex palmarosae	36.00	Conus glaucus	5.00
Cancellaria lyrata	75.00	Conus promethius	7.00
Voluta grossi	18.00	Conus scalaris	16.00
Pleurotomaria hirasei	22.00	Conus vidua	4.00
Epitonium sp.	15.00	Spondylus regius	28.00
Cypraea hirasei	27.00	Papuina pulcherima	11.00
Cypraea friendii	15.00	Megalatractus	12.00
Voluta fulgetrum	7.00	Conus recurvus	9.00
Thatcheria mirabilis	6.50	Voluta daviesi	15.00
Amaea magnifica	10.00	Voluta sophiae	2.00
Conus amadis	10.00	Voluta aulica	11.50
Conus ammiralis	5.00	Murex bednalli	26.00

Such figures as listed above are really not indicative of the value of many of the shells. A select specimen of almost any shell will command a premium, and a defective shell of even a great rarity may sell at auction to those who see it for comparatively little.

For instance, in this auction Nick mentions a few notes on the shells. The Voluta grossi- slight damage on the lip. Voluta fulgetrum - good color but not a thick lip.Conus promethius -Some worm holes on part of the shell. Voluta aulica- Good color, but dead shell.Murex bednalli - Dead shell,holes here and there.

As a dealer in specimen shells I will comment that some of the shells sold for more than the market going price, but on the other hand some of them went at bargain prices. This seems to be characteristic of most auctions; some got bargains, others paid a bit too much, but all had fun doing it. We hope that Nick repeats his auction annually. Wish I could have been there. J.Q.B.

****

Effective Oct.1, Dr. Ernest Roscoe was appointed Assistant in Lower Invertebrates at the Chicago Natural History Museum.

Conchological Club of Southern California
Minutes October 6,1959

The meeting was called to order at 7:35 P.M. by the president, Dr. Donald Shasky. There were 53 members and guests.

The minutes of the Sept. 1 meeting were read and approved after changing the spelling of Brian to Bryan and Pali to Pele.

It was announced that a member of long standing, Mr. Lloyd Berry was extremely ill and not expected to live. (He passed away the day after the meeting- a sympathy card will be sent to his sister.)

Mr. Crawford Cate explained that he called the exhibit of shells he and Jean Cate had placed on display -" Treasures of the Sea". They were primarily rare or uncommon items but no Hawaiian material was included. Their list value on the open market would total around $4,000.

The first speaker of the evening, Dr. Kenneth S. Norris,Curator, Marineland of the Pacific, was introduced. He stated that he was unemcumbered by any real knowledge on octopuses- his topic-but had enjoyed considerable social contact with them.When Marineland decided to display giant " man-eating" octopuses they contacted an Italian fisherman at Monterey who trapped the beasts. They proved to be quite delicate and many were lost in transit between Monterey and Marineland.Even when they arrived safely they seldom lived more than eight or nine months- so displaying Monterey giant octopuses was expensive to say the least. It was found that they seldom survived when the water temperature rose above 59° F. They were unfriendly to each other and constantly fought until one or both battling participants died. Toxic substances in the water of the $12,000 octopus display tank built at Marineland killed them in less than two hours. The toxic solution, less than .04 parts per million of copper in combination with other metals, necessitated installing pyrex and plastics in place of metal in the water distributing system. With this " bug" ironed out they decided to fish for octopuses closer to home and chose an area off Santa Catalina. The desired individuals were located in 200 to 600 feet of water at the bases of rock pinnacles. Many captured octopuses wouldn't leave the trap until the backside of a starfish was touched to them. Being sensitive to the pinching pedicellaria of the starfish they then literally flew out of the trap. Sometimes during the summer, surface water temperatures are above the 59° F. maximum the octopus can stand and pulling trapped animals through this warm water kills them. No giant octopuses have ever been taken by trapping crews either during August or September regardless of the depth fished. There is no apparent explanation for this phenomennon. A number of observations have been made on captive octopuses. They feed primarily upon crabs which they kill by biting through the back. The crab meat is removed with the tips of the arms,often without breaking the shell. The female lays eggs in the winter and then guards them until they hatch.Feeding drops off during incubation. When fighting they insert an arm inside the mantle cavity of their opponent and literally turn him inside out. They frequently bite their own arms off or batter themselves to death against the walls of the tank. They are surprisingly intelligent and learn to respond to stimuli about as rapidly as many vertebrates. They are extremely emotional and change both the color and texture of their skin with various moods. The largest caught so far was about 16 feet across (from tip to tip) and weighed about 100 pounds. The longest one has lived at Marineland has been about 13 months although the Tacoma Aquarium has kept one alive for 2 1/2 years.

A short recess was held between 8:25 and 8:40 P.M. while George Kanakoff searched out an extension cord for the slide projector.

When the group reconvened Mr. A.M. Olsen,Senior Research Scientist ,Tasmanian Regional Laboratory, O.S.I.R.D. was introduced. He showed a fine collection of Kodachrome s depicting the Tasmanian commercial scallop fishery and seascape and landscapes of Tasmania. Three species of scallops are commonly captured in Tasmanian waters. They are: the commercial scallop, *Pecten meridionalis* ; queen scallop,*Equichlamys bifrons*; and the doughboy scallop,*Mimachlamys asperrimus*. Some 1,000,000 pounds of scallop meats,representing 18 to 20 million scallops, are processed each year during a three month season.Most of these are the commercial scallop which takes six years to attain legal size and are known to live as long as 17 years.Aside from man,starfish are the main predator on the scallops. They live mainly on rock free,sandy-mud bottom and are captured in scallop dredges-mostly in water shallower than 100 feet. The dredging boats work quite close together and travel back and forth over somewhat the same territory.In this way their catches are bigger because the constant stirring up of the scallops tires them out,thus permitting capture. When disturbed by a dredge a scallop will jet propel itself through the water for as mauch as 100 feet before tiring. They jet ahead about four to five inches with each pulsating closure of their valves often flitting about some two to ten feet off the bottom. Since 1940 there have been only four successful hatches of scallops in Tasmanian waters. These occured in 1 1940,1948,1953 ans 1957. The 1940 hatch supported the entire industry until 1953 when the 1948 hatch had reached legal size and entered the fishery. Many of Mr. Olsen's observations were made underwater while either hard suit diving or using SCUBA gear. Some of h his hatch information was obtained by donning SCUBA gear and riding the dredge as it was towed through the scallop beds.

Upon completion of this very informative, illustrated talk it was announcced that Bert Draper had placed on display a collection of minute local shells. He admitted spending some 1,000 hours working on this collecttion during the past three years.

Ralph Kettering,president of the Pacific Shell Club,extended an invitation to attend their meetings. These will be held the third Sunday of each month at 2 P.M. at the Crenshaw Community Youth Center.

Rose Burch introduced the 15 guests who were present.

Door prizes were drawn for the last three meetings,.and Virginia McClure,Lois Janus, and C.E. Davis were the lucky trio.

John Burch, in bringing the group up-to-date on recent publications had a few good words to say about the " Minutes of the Conchological Club", and then displayed several recent worthwhile items. Foremost among these were the works of Gilbert Grau, Revision of the Pectenidae of the Eastern Pacific, and Nettie Macginitie Marine Mollusca of Point Barrow, Alaska.

The meeting adjourned at 9:55 P.M.

Respectfully submitted,
John E. Fitch, Secretary

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Want a wooden shell cabinet ? If so the Chicago Natural History Museum,Roosevelt Road and Lake Shore Drive, Chicago 5, Illinois, has a number of good ones to exchange for specimen shells. If you are interested write Dr. Alan Solem.

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CONCHOLOGICAL

CLUB OF SOUTHERN CALIFORNIA

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Agaronia Gray 1839 The Zoology of Captain Beechey's Voyage,p.131
" The genus appears to be intermediate between the olives and the Ancillariae, for it has a twisted columella and wide mouth of the latter,and the grooved suture of the olive; but the animals offer the best character,and they have much more resemblance to the Ancillaria , for they have no distinct eyes,nor any tentacles, without the two perpendicu;ar plates on each side of the mouth are to be considered in this light.

Its foot is large and dilated,with a flap on each side in front; the front lobe has a longitudinal slit in front and is separated from the rest by a cross groove on each side,even with the front edge of the flap and opposite to the hinder edge of the callous band placed on the front of the last whorl of the shell. The respiratory tube is very long; and the male organ is elongated,compressed bent back when contracted and furnished with a sub-posterior inferior conical process." Type by monotypy, Oliva hiatula Lam. , Hist. vii,435 = hiatula Gmelin 1790. Designated by Swainson,1840.

Ref. Min.183,p.3 and Min.186,pp.8-12.
The correct relationship of Agaronia as well as the numerous species described is a puzzling matter. We were disposed to recognize Agaronia as a subgenus of Olivancillaria, and this may be the ultimate answer. However, it seems that the preponderance of authority at this time seem disposed to attempt to maintain Agaronia as a genus. Therefore, we will accept this disposition.

Hertlein and Strong,Marine Mollusks Collected During the " Askoy" Expedition to Panama,Colombia, and Ecuador in 1941, Bull.Am.Mus. Nat. Hist.,Vol.107,Art.2,1955. This work contains a very good analysis under Agaronia testacea Lamarck- 1810- Ann. Mus.Hist.Nat. Paris, vol.16,p.324. Reeve,1850,Conchologia iconica, vol.6,Oliva, sp.36. Marrat,1871,in Sowerby,Thesarus conchyliorum, vol.4,p.26, pl348(Oliva pl.21), figs.334,335. Tryon,Manual of Conchology, vol. 5,pl.34,fig.65 (copy of Marrat's fig.334). Von Martens,1897, Arch.Naturgesch,63rd yr.,vol.1,p.163,pl.16,figs.7,12.
Oliva hiatula Gmelin ,Duclos,1835,Histoire naturelle...coquilles, genre Olive,pl.3,figs.13,14, not figs.16,17. Not Oliva hiatula Gmelin.
Agaronia reevei Mörch,1860,Malakozool,Blatter,vol.7,p.87 (based on Reeve's fig.36).
Type Locality: " Habite la mer du Sud, sur les cotes du Mexique, où M.Bonplan l'a recueille."
Range: Punta Penasco in the Gulf of California to Peru....
Habitat: Gray sandy mud bottom.
Description: " O.Cylindraceo-ventricosa,dorso testacea,extremitatibus fuscata;ore patulo,subviolaceo." (Original description).
Remarks: There is variation in the outline and color of this species. Some authors have considered it to be identical with the West African Agaronia hiatula Gmelin. The two are undoubtedly very similar.

Von Martens (1897,pp.160-167,pls.15,16) discussed the relationship of the West African and west American species. He recognized three subspecific forms of the west American species, which he cited as Oliva (Agaronia) testacea, sensu stricto , from Panama, testacea var. griseoalba, from Mexico, and testacea var.philippii from Cobija,Chile. In addition he cited two mutations which he stated might be only individual variations and not local races. These were cited as Oliva (Agaronia) testacea mut.angularis, and testacea mut.candida, a pure white form from Panama. (con.)

Oliva propatula Conrad (1849, p.156) was considered to be a synonym of O. testacea by Carpenter (1857, p.265). Agaronia murrha Berry (1953b, p.417,text fig.5m pl.29,fig.1) has been described recently from Corinto,Nicaragua. The shell of this form is said to differ from that of A. testacea in possessing a lower spire, longer aperture, constricted and relatively shallow sutural canal, and more ovate outline, and in other details.

Olsson,1922,described Oliva testacea var. costaricensis from the Miocene of Costa Rica, and stated that it was wider,shorter, and had a lower spire than typical testacea. The same author mentioned a form (1922, pp.262-263) occurring in the Pleistocene and Recent of the east coast of Panama and of Costa Rica and said it differed from west coast specimens of Agaronia testacea in the more slender form and somewhat different coloration. Olsson has also described species of Agaronia which occur in the Oligocene and Miocene of Peru. Agaronia testacea has been recorded as occurring in the Pliocene of Costa Rica and Panama and in the Pleistocene of Maria Magdalena Island, Tres Marias Group, and Oaxaca, Mexico.

According to D.S. and E.W. Gifford, this species, in the Gulf of California, was found living higher on the beach than any other olive shell." End quote.

Some of the material recently examined in the large collections indicate such an amazing variation with almost identical specimens appearing from widely separated localities. In short, when the specimens can be seen in large numbers the problems of dividing them becomes increasingly difficult. The collection of the U.S. Natl. Mus. contains many sets showing all forms. 361636 near Managua,Nicaragua, is of the murrha form. 99279,Tehuantepec, is of the propatula form. 32460 ,Nicaragua, all white, murrha form. 55022 labelled West Indian Islands ? seem to be typical hiatula. 96140, 59 fms. in mud E. of Rio de Janeiro, labelled auricularia but is Agaronia - dead shells. 96615 12 fms. off Rio La Plata-same as above. 740688 labelled Agaronia testacea ,Maldonado Coast Uruguay- white shells but not typical folds on columella. There are numerous sets from Nicaragua etc. containing all forms. Acad. Nat. Sci. Phil. X§ 154498, A. testacea from French Plaza, Panama City (Pilsbry,1929).194541 ,San Benito,Chiapas,Mex. 2 specimens white, brown aperture. 196575,San Juan del Sur,Nicaragua, a large series of several forms.

Am.Mus.Nat. Hist., Agaronia pallida 484496- a growth series orange colored specimens to gray, and 1" to 1 3/4"- lower spired and more obese body whorl than typical hiatula. 48499 Panama, labelled A. hiatula , dark color. # 9883 Senegal. # 9882,Corisco, considerable variation in height of spire. #9889 Gambia, a large set showing amazing variation in form, width of aperture,height of spire, as well as color and pattern.10542,Panama ,dark of the murrha form. 9884 Panama, higher spired than above and closer to typical testacea.10522, Senegal, whitish cream color, reminds one of the type of murrha. 9876 Senegal, is very close to form of testacea. Acad.Nat Sci.Phil. 225070,Panama,typical testacea.

Agaronia steeriae (Reeve) 1850 Conch.Icon,t.18,f.37
We remain puzzled about this species. Am Mus.Nat Hist 48493, Gambia Large growth series Juv. to adult, all of the milk white shells with brownish red apertures. Other sets of same type in museums. Marrat figures from Kurrachee River. Dr. Marche-Marchad states that it is not known in Senegal. South American authors list it but have seen no authentic specimens from South America.

Ancilla Lamarck,1799 in Memoires de la Societe d'Histoire Naturelle de Paris, p.70- " Prodrome d'unde Nouvelle Classification des Coquilles".
" Coq.oblongue a spire courte, non canaliculee; bas de l'overture a' peine èchanchrèe,versante; un renfliment ou un bourrelet oblique au bas de la columelle. " Monotype Voluta..Martin Conch. 2,p.359, t.65,f.722,724.
Type by monotypy, Ancilla cinnamonea Lamarck,1801. On official list of the International Commission.
Early Cretaceous,Pliocene, Recent.
Ref. Minutes 185,p.2.

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Ancillaria Lamarck 1811 Annales du Museum d'Histoire Naturelle,p. 302. " Coq.oblongue,subcylindrique; à spire courte, non canaliculèe. Overture longitudinale, àpeine èchancrèe à la bas,versante. Un bourrelet calleux et oblique, au bas de la columelle."

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Ancillaria Risso 1826 (non Lamarck) Histoire Naturelle des Principales de l'Europe Meridionale,Vol.IV,p.231.
" Ont les tentacules conico-subules; les yeaux situes sur le cote exterieur, au-dessus de la bas ou vers le millieu.
Coq.suboviforme,spire courte;suture tres profonde ouverture extroite aigue porterieurement,emarginee au-denant; peritreme parfait,epais et plisse a gauche,tres mince a droite. " Monotype,A.fulminea Risso.

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Ancillus Montfort 1810 Conch.System. Vol. II, p.383
" Coquille libre,univalve,culindrique, a spire apparente,sommet eleve,tours de spire calleux; bouche allongee,moins longue que la tet,elargie a la bas;columella lisse,mais tres calleuse;levre exterieure obtusa;base echanchree;plesieurs plis reunis a la bas de la columelle." Type by original designation-Ancilla buccinoides - Anaulax buccinoides de Roissy. Paleocene-Recent.

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Chilotygma H.and A. Adams 1853 Genera of Recent Mollusca,p.149
" Spire moderate,suture enamelled; inner lip with the callus produced posteriorly into a strong angular tooth." Monotype- A. (C.) exigua Sowerby 1830.

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Monoptygma Lea 1833 Contributions to Geology,p.185
" Shell fusiform; mouth ovate; columella furnished with a single fold passing obliquely into the interior of the mouth."
Monotype- M. alabamiensis Lea.

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Mention of a few species will follow.

Ancilla exigua Broderip and Sowerby 1830 Spec.Conch.,Anc.p.6, figs.33,34,35. Ref. Minutes 183,p.14.
And Ref. for Ancilla unidentata Sowerby 1894 Pro.Mal.Soc.Lon. 1:160,pl.12,fig.20. Minutes 183,p.20.
It is probable that set #130541, U.S. Natl. Mus. is correctly labelled as follows- Ancilla exigua Sowerby 1830 = Ancilla unidentata Sowerby 1894 subgenus Chilotygma Aden.

****

Ancilla lanceolata Martens 1901 Ges.Naturf. Berlin,p.23. Figured in Tiefsee Exped.,p.110,1898-90. In subgenus Turrancilla, Ost und Sudafrica und Japan-Thiele,p.333.
There are numerous sets in the U.S. Natl. Mus. from Philippines. #239119,Sibova Bay, Borneo.

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Ancilla montrouzieri Souverbie 1860 Ref. Min.183,p.17
The best material we have seen of this odd species is in the Am.Mus. of Nat. Hist. All are from New Caledonia, and the species is probably endemic to that locality. #10592 , 48473,24149- Some of these are fine specimens with opercula. This is indeed an odd form. The callus runs from the fasciole the length of the columella merging into callus covering the apex. Body whorl is marked off by color of a darker shade.

****

Ancilla mamillata(Hinds 1843) Ref. Minutes 183,p.16
There was some doubt in our minds about the claim to distinctness of this species. After seeing numerous sets we consider it valid. Set #48480, U.S. Natl. Mus. is a little puzzling- from Japan- The form is correct but shell has a reddish brown ridge above the fasciole. Same color band below suture on the body whorl.

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Ancilla mauritiana Sowerby 1830 Ref. Minutes 183,p.17
Some of the material examined for this species may be mentioned. Set #77552, U.S. Natl. Mus. Stearns Coll. #194582 in Acad.Nat. Sci.Phil.,from Mauritius- shells are large, about 38 mm., brown, wide aperture ?. Some sets in the Am.Mus.Nat Hist. #24146 from Mauritius are about 35 mm. white, wide aperture,ridge above fasciole, smooth twisted columella. #10619 is the same. #10622 labelled St. Croix, seem to be identical but are of light brown color.

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Ancilla minima Thiele 1925 Deutschen Tiefsee Exped.,Taf.XXL,fig. 14. We have not seen this species in any collection, but from the figure it seems to be good.

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Ancilla siberutensis Thiele 1925 Deutschen Tiefsee Exped.,Taf.21., fig.10. We have seen this species in none of the collections. However, from the figure it seems to be quite distinct. A deep water species.

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Ancilla sulcata Thiele 1925 Deutschen Tiefsee Exped.,Taf.21, fig.12. Thiele places this in subgenus Chilotygma . We have seen no specimens but from the figure it seems to be quite distinct.

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Ancilla albicallosa Lischke 1868 Ref. Minutes 183,p.10 - Incidentally we followed Tryon in misspelling the name albocallosa. Havin received and seen many sets of this species we are now convinced that it is valid and separable.

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Ancilla hilgendorfi (v. Martens 1897) Ref. Minutes 183,p.16
We were uncertain of the status of this species, but having seen and received numbers of fine specimens we have decided to admit it as separable from albicallosa. However, we had thought of it as a species confined to the fauna of Japan. We noted an interesting set in the Coll. of the U.S. Natl. Mus., #238920, Apo Id.,Negros, Philippines.

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Ancilla rubiginosa Swainson 1825 Quart.Jour.Sci. Roy. Inst.Gr. Brit. Vol. XVIII(36),p.283 Zool/ Ill/ii,t.4 1830
Phil. Mag.Vol. LXII (308),p.403.
Having seen a number of sets that seem to fit this species we have accepted it as separable from the above mentioned species from Japan. Set #237702, U.S. Natl. Mus.,China Sea off Pratas Island is typical in our concept of the species.

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Ancilla unidentata Sowerby 1894 Ref. above Min.194,p.4
Thiele 1925,Deutschen Tiefsee Exped. accepts as valid & figures.

Callianax H. and A. Adams 1853 Genera of Recent Mollusca, p.146
" Shell not polished;spire produced, acute,suture channelled; aperture wide, effuse in front; callus of inner lip thick.'defined; columella simple or with a few plaits anteriorly."
Type by subsequent designation Cossmann,1899 O. biplicata Sby. Other species listed by Adams-columellaris Sby.,semistriata Gray, zenospira Duclos.

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Carmione Gray 1858 Proc. Zool. Soc. London.,Vol.26,p.47
" Shell ovate,subcylindrical; spire small,sutural groove open to the tip; aperture linear, narrow.Pillar lip expanded,sufficiently far back as to cover the front callous belt, and furnished with a more or less distinct raised cross ridge; inner lip grooved."
Monotype- Oliva inflata Lamarck = O. bulbosa (Röding).

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Claneophila Gray 1858 Proc. Zool. Soc. Lon., Vol.26, p.47
" Shell ventricosa or obconic; spire callous, the sutural groove closed on all,except the last whorl;aperture ample. Pillar lip expanded, swollen and callous behind, twisted and obliquely grooved in front. Foot elongate, about as long as the shell, broad,rather tapering behind,dilated in front, and covering the greater part of the shell, front lobes rather large, crescent-shaped,outer hinder angles acute. Tentacles elongate; eyes one-third from the base. Operculum none. -Duclos, t.33,f.6"
Type by tautonomy- Oliva claneophila Duclos, Oliv.t.29,f.89. "
= Olivancillaria auricularia Lamarck

****

Cymbancilla P. Fischer 1881 Journ. de Conch.,Vol.XXIX, p.33
" Je propose ce non de sous-genre pour les Ancillaires à spire très courte et à coverture très dilatée dont l'A.volutella Desh. (mauritiana Sowerby) est le type. Gray a proposé pour elles le nom de Anolacia ,altérationdes Anaulax de Roissy et qui a l'inconvénient d'établir une confusion entre deux groupes voisins."
Type by original designation- Ancilla volutella Deshayes = mauritiana Sowerby.

****

Dactylidella Woodring 1928 Contrib. to the Geol. and Paleo. of the West Indies, Carnegie Inst. of Wash.]Publ.No.385,p.233.
" Shell resembling Dactylidia though the type species is larger and more slender.Apertural features as in Dactylidia,except that the interior of the outer lip bears fine low lirations. *** The type species has the strong basal fold and sharply limited plaits of Dactylidia though the plaits are stronger. A number of fossil species with lirate outer lip are known in addition to the Bowden species here described.(Olivella galvestonensis Harris, Bull.Am. Paleo. Vol. I,p.100)*** This section apparently is no longer living in West Indian waters. On some specimens of anazora the lirations occupy a broad area covering as much of the interior of the outer lip as can be seen, on other specimens they lie far within the aperture,on others they form a narrow fringe at the very edge of the lip,and on others cannot be seen at all. This may possibly be due to conditions affecting the size of the animal, such as abundance of food,rather than to some genetic difference,though this can be determined only by anatomical study of anazora. "
Type by original designation, O. anazora Duclos.
Dactylidella- Olivella colpus Woodring- Miocene, Jamaica.

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Dactylidia H. and A. Adams,1853 Genera of Recent Mollusca,p.146
" Spire obtuse, covered with a thick deposit of enamel;aperture narrow,plicate; inner lip with a large, thickened callus,produced at the hind part, and covering and concealing the spire."
O. millepunctata Duclos,O. mutica Say, O. nana Lam. "
Type by subsequent designation, Cossmann,1899- O. mutica Say

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Dactylus (Klein) H. and A. Adams 1853 Genera of Recent Mollusca p.143. " Tentacles enlarges at the base.Mantle with a posterior filamentlodged in the channelled suture of the spire. Foot long and acuminate behind,shield with the side lobes tapering,acute, small. Shell oblong,subcylindrical,polished; spire short,suture canaliculated; aperture long, narrow,notched in front;columella obliquely plicate,sulcated or striated; with a callosity at the hind part; outer lip simple, rather thick. In the genus, as restricted, the callus of the inner lip is produced posteriorly beyond the spire, and there is a prominent callosity on the anterior part of the last whorl.
avellana Lam.,bulbiformis Duclos,bulbosus Röding,inflatus Lam., tuberosus Röding,undatus Lam. "
= Oliva Bruguiere

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Dipsaccus (Klein) H. and A. Adams 1853 Genera Rec. Moll.,p.147
" Shell fusiformly cylindrical,polished, solid,generally deeply umbilicated; spire elevated, suture covered with enamel;aperture oval,elongated;inner lip tortuous;outer lip acute, with a slight tooth on the fore part. .. balteatus Sowerby, cingulatus Sowerby, glabratus Linne',niveus Swainson. "
Cited by the author as example- glabratus Linne'.

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Eburna Lamarck 1801 Systeme des Animaux sand Vertebres, p.78
" Coq.ovale ou alongée, lisse, à bord droit tres-entier.Overture oblongue,échanchrée inférieurment .Columella ombiliquée,subcanaliculee à sa bas. "
Monotype- Eburna flavida Lamarck.n. Buccinum glabratum Linn. Lister,t.974,f.9. Gualtieri t.43,fig.T. Martini Conch. 4,t.122, f.1117. Vulg. l'ivoire."
Miocene-Recent
Subgenus of Ancilla Lamarck 1799 Type (by monotypy) Buccinum glabratum Linne' (renamed Eburna flavida by Lamarck).

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Galeola Gray 1858 Proc. Zool. Soc. Lon.,Vol.26,p.48
" Shell subcylindrical; spire small,acute,callous,sutural groove of upper whorl is obliterated;aperture linear.Pillar lip defined, expanded in front, not covering the front belt; inner lip thickened, cross-grooved; front belt narrow. Operculum-? Animal-?"
Type by subsequent designation, Cossmann,1899-Voluta carneola Gmelin.

****

Eburnus Montfort 1810 Conchyliologie Systematique,Vol.II,p.507.
" Coquille libre,univalve,turriculee,ou a spire elevee;lisse; dernier tour de spire egalant au moins tous les autres;bouche allongee;columella lisse,ondulee,double,ombiliquee en forme de bouche, calleuse dans le haut;levre enterieure tranchante,dentee ou plissee dans le bas;base enchanchree."
Type by original desigmation. E. flavus Montfort = Buccinum glabratum Linne' ; Eburna flavida Lamarck = Ancilla glabrata (Linne').

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Galeolella Cossmann 1899 Essaid de Paleoconchologie Comparee,p.44 " Toutefois la denomination Galeola deja employee par Klein 1734 ne peut etre conservee; je propose donc d'y substituer:Galeolela nobis. " Type by original designation, Oliva carneola Lam.

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Galeolopsia Rovereto 1899 Atti della Societa Linguistica,Genova, Vol. X, no.2, p.103
Sect.: Galeolopsia n. denom.
Syn. Galeola Gray 1858, Fischer 1887 : non Klein 1754 (Echinodermata)

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Lamprodoma Swainson 1840 The Cabinet Cyclopedia: A Treatise on Malacology, p.321
" Mitriform; spire produced, conic; resembling Mitrella in shape but the suture is channelled; the aperture effuse at the base, contracted above;lower half of the pillar with 6-7 plaits. "
Type by monotypy- O. volutella ,Zool.Illus.,11,series,pl.40,fig.1

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Lintricula H. and A. Adams 1853 Genera of Recent Mollusca,p.141
" Shell oblong,ventricose,thick;spire very short,obtuse,callous, suture not channelled to the apex; aperture very wide.
aquatilis Reeve, vesica Gmelin "
Type Olivancillaria auricularia (Lamarck).

****

Micana Gray 1858 Proc. Zool. Soc. London,Vol.26,p.56
" Shell ovate or obconic; spire conical,callous;upper sutural groove obliterated;aperture ovate;inner lip thickened,expanded;pillar with two small grooves in front;anterior belt narrow,single. Animal --? Operculum half-ovate,horny."
Monotype- Oliva nana Lamarck,#60.

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Neocylindrus Fischer 1883 Manuel de Conchyliologie, p.598
Monotype- Olivella tessellata Lamarck.

****

Olivancillaria d'Orbigny 1840 Voyage dans l'Amerique Meridionale, p.420." Animal columineux ,porvant envelopper toute la coquille. Pied large,arrondi en arrier ;bouclier tres-large, a lobes obtus. arrondis sur les cotes; tete recouverte par les lobes du pied; le manteau donns naissance en arriere a un lobe large,pouvant embrasser jusqu'a extremite de la spire;point d'opercule.Coquille sand canal sur la spire, au-dela du dernier tout,tout la reste etant encroute constamment par le depot que laisse le lobe du manteau. Le nom que mous avons donne a cette division rapelle a la fois le double rapport qu'ont ces coquilles avex les Olives caniculees sur la spire et les ancillaires, qui ne le sont pas de tout."
O. brasiliensis d'Orb.= O. brasiliana Lam.
O. auricularia d'Orb.= O. auricularia Lamarck
** O. brasiliana (Lam.) = Olivancillaria urceus (Röding,1798.

****

Olivaria Rafinesque 1815 Analyse de la Nature, ou Tableau de l'Univers et des Corps.Organises", Palerme,1815, p.19. In the Complete Writings of Constantine Smaltz Rafinesque, etc." edited by Wm.Binney and G.W. Tryon, New York,1864.
1.S.F. Conulia Les Conuliens. Bouche ou overture de la coquille laterale. G.1.Anaulax Roissy . Ancilla Lam. Olivaria R. Oliva Brug. Terebrina R. ...
This is merely an emendation pro. Oliva Bruguiere.

****

Olivella Swainson 1831 Zoological Illustrations p.58
" Spire of the shell lengthened, conic,the tip acute: inner lip not thickened,outer lip straight: base of the pillar curved inwards and marked by two strong plaits; upper plaits evenescent or entirely wanting. Aperture effuse, and closed by an operculum ? Nobis/"
Type by subsequent designation Dall,1909- O. purpurata Swainson= O. dama Mawe.

****

Olivina d'Orbigny 1840 Voyage dans l'Amerique Meridionale,p.417
" L'animal est peu volumineux, ne couvrant tout au plus que les deux tiere de la coquille; le pied est ovale transversalement, tronque ou arrondi en arriere; le bochlier, tres -stroit, est divise lateralement en deux appendices lanceoles, acumines; tete toujours cachee soud les plis du pied. Un opercule corne aussi grand que la bouche meme,virguliforme,compose d'elemens deposes lateralement sur le cote convexe. La coquille a sa spire saillante la bouche etroite en arriere,elargie en avant; le bord columellaire souvent calleux postieurement, en dehors de la bouche."
O. puelchana d'Orb.- O. tehuelchana Duclos-
O.tehuelchana d'Orb. - O. puelcha Duclos
O. columellaris d'Orb.- O. columellaris Sowerby
d'Orbigny's footnote discusses confusion.

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Olivellopsis Thiele 1929 Handbuch, p.333, Vol. I.
" Sectio Olivellopsis n. sect. Schale sehr klein,forblos,Naht mehr angedruckt,spindelschwiele ohne untere falte."
** Shell very narrow,colorless,suture more squeezed,columellar call--us without plaits below.
Monotype- B.(O.) simplex Pease bei Upolu und Tongabatu.
Described as a section of genus Belloliva Peile 1922.

****

Olivula Conrad Dec.1832 Fossil Shells of the Tertiary Formations of North America, p.25.
" Of the species described by Lamarck, this shell(Ancillaria staminea Conrad) approaches nearest to A.canalifera .These two species (A.canalifera and A.staminea Conrad) do not correspond entirely with the genus Ancillaria , as the aperture is much longer the shells are striated, and the suture is somewhat channelled. They might constitute a separate genus by the name of Olivula and would connect Ancillaria and Oliva."
Type by subsequent designation Cossmann,1899- A.staminea Conrad

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Plocheloea Gabb 1872 Proc. Acad. Sci.Phil.,p.271,pl.11,fig.5
Shell olive shaped,suture nearly obsolete, as in Ancillaria; aperture linear, deeply and obliquely notched at the base, as in Dibaphus .Outer lip thickened internally,in the middle;inner lip encrusted and having several transverse folds, of which the upper are the smallest;columella strongly recurved at the base.
From its form and general appearance, I am inclined to consider this genus as belonging to the Olividae,although its details of character are strikingly like that of Dibaphus. It seems to form, in a manner , a connecting link between the true olives and the genus Monoptygma Lea (not of Adams,Sowerby, etc.). The folds are placed in reverse order to those of Mitra."
Type by original designation" P. crassilabra Gabb.
*** Wentz places this genus in the Mitridae.

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Paroliva Thiele 1929 Handbuch der Systematischen Weichtierkunde, Jena,1929,p.335.
" Sectio Paroliva n. sect. Schale klein,walzig,seh r glanzend, mit kleinem,küppelformigen Gewinde,Spindelschwiele dünn, im oberen Teile glatt."
Monotype -Oliva (Paroliva) dubia Schepman.

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Porphyria Röding 1798 Museum Boltenianum, p.32
Porphyria . Die Dattel
*Cylindroideae.Zilinderformige.
I.Clavecula depressa, mid gedruckter.
Spindel.
Type- Fide Winckworth,Mal.Soc. Lon.,1945,pt.4-5,p.142.
Type by tautonomy, P. porphyria R.= Voluta porphyria L.1758
Thus it is an exact synonym of Oliva Bruguiere.

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Ramola Gray 1858 Proc.Zool.Soc. Lon.,Vol.26,p.47
" Shell subcylindrical,spire small,conical,sutural groove open to the tip;aperture narrow;anterior belt narrow,single, Pillar lip expanded in front,not covering the front belt,with numerous trans--verse grooves in front.Operculum none.'Foot large, covering the shell.'-Adams."
Monotype- Oliva volutella Lamarck,#43,; Duclos,Oliva,t.6,f.7-14; Reeve,C.I., t.21, f.54.

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Scaphula Swainson 1840 (non B enson 1834) The Cabinet Cyclopedia: A Treatise on Malacology, p.322.
" Spire very short,thick,obtuse and not defined; aperture very wide, with only two or three oblique plaits at the base."
Monotype- S. patula Sowerby.,Tank.Cat.,2331b.

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Scaphula Gray 1858 Proc. Zool. Soc. Lon.,Vol.26,p.56
* " Scaphura" in list, p.38; " Scaphula" in description.
" Shell ovate,spire conical,sutural groove open to the apex;aperture ovate;inner lip rather expanded,thickened,defined, smooth, with two small plaits in front;anterior belt very narrow. Foot (Oliva biplicata or auriculata ?) rather short, about the length of the shell, broad, much dilated on the sides and covering the whole of the shell;the front lobes very large, broad,oblong,, rounded on the sides. Head hidden. Tentackes none. Eyes none. Operculum none. Animal pale grey-brown, not spotted...My genus Scaphula was established on d'Orbigny's account of the animal."

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Sandella Gray 1857 Guide to the Systematic Distribution of Mollusks in the British Museum, p.26.
" Shell ovate,covered with an enamel coat,forming a broad belt on the whorls, and reaching the penultimate whorl to the back of the mouth; axis imperforate; outer lip with an obscure tooth in front. Operculum- ? Animal--?"
Monotype- S. tankervillei
*** = Amalda H. and A. Adams 1853

****

Sparella Gray 1857 Guide to the Systematic Distribution of Mollus--ks in the British Museum, p.26.
" Shell entirely covered with an enamel coat; spire conical,short; axis not perforated;outer lip often marked with an obscure tooth in front. Operculum--?" Type by subsequent designation-
A.(S) ventricosa Lamarck.
** = Ancilla Lamarck.

Sparellina Fischer 1883 Manuel de Conchyliologie, p.600
" Suture couverte,polie".
Monotype- Ancilla candida Lamarck

****

Strephonella Dall 1909 U.S. Geol. Survey, Prof. Pap.$59, p.32
" B .pillar straight,anterior fasciole flat, with low XXXXXXX
similar numerous lirations., Lamprodoma Sw.
a. ---------(Lamprodoma s.s.)
b. Body lirate. Strephonella Dall nov. sect.
Type by original designation-Lamprodoma (Strephonella)undatella Lamarck.

****

Tortoliva Conrad 1865 Am. Jour. Conch.,April,1865, p.143
" Subcylindrical or subovate; spire short,obtuse;aperture elongated, effuse at base;columella callous, with an impressed,oblique fold."
Monotype- T. texana Conrad.

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Turrancilla Martens 1904 Dei beschalten Gastropoden der deutschen Tiefsee-Expedition,p.110,pl.3,fig.10
(According to Thiele the book was published late Jan.,1904. It is usually listed with date 1903)
Monotype- Ancilla (Turrancilla) lanceolata Martens.

****

Utriculina Gray 1847 Proc. Zool. Soc. Lon.,Vol.CLXXIX,p.140
Type by original designation- Voluta utriculus

****

Mrs. John Kaicher, 100 Airview Circle,Lake Charles,Louisiana

There is no doubt but that Mrs. Kaicher is better known for her publications as Sally Diana Kaicher.

We wish to give due credit to Sally for her work on the Olividae while she was at the U.S. National Museum. We found her notebook of great value particularly in placing some of the species that have been published in obscure publications.

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Publications

A Historical Review of the Mollusks of Linnaeus -Part 7. Certain species of the genus Turbo of the class gastropoda by Henry Dodge. Bulletin of the American Museum of Natural History, Vol. 118,Art.5, New York: 1959. Price $1.00. May be had from John Q. Burch or the publishers.

The fact that this is the last of this invaluable series is a great dissapointment to all. Our deepest sympathy to Mr. Dodge who has been compelled to abandon this project because of the deterioration of his eyesight.

Systematic Zoology- Vol.7, No.4. This is a periodical of very scholarly papers. It is a publication for the serious student, but perhaps not designed for the novice.
Some of the papers in this issue are:
Taxonomic Methods, Their Bearing on Speciation by R.A. Pimental
General Adaptation and Evolution by W.L. Brown Jr.
An Analysis of a Sample of Systematic Literature by D.L. Reish
Problems of Higher Classification by P.R. Ehrlich
Similarity and Recency of Common Ancestry by R.S. Bader

Venus- Japanese Journal of Malacology Vol.20, No.3 August,1959
The papers in this issue are:
Orthosurcula Japanese species of Orthosurcula by the late Yanosuke Otuka. 3 pp 1 pl. of 7 figs.
Review of nomenclature on Japanese shells by Katura Oyama
Notes on the alimentary canal of Pteropoda by Masao Nakazima pp 253-262, 5 pages of plates. An excellent paper.
A note on Camptoceras prashadi (Clench) by Bengt Hubendick pp 263-273, 2 pages of plates. A scholarly paper.
Anatomy of two forms of Lymnaea onychia Westerlund and their ecological notes by Hiroshi Itagaki. pp 274-288,4 plates.

Basteria-Vol.23,No.3,pp.33-48, 1-x-1959. The publication of the Malacological organization of the Netherlands. The papers in this issue are:
Bestimmung des Lebensalters bei Mollusken aufgrund der " Jahresring" by Ewald Frömming.
Age determination by winter rings by S.Van Der Spoel
Revision de Parmacella olivieri Cuvier et position systematique du genre Parmacella Cuvier by Lothar Forcart
On the true identity of Sphaerium borneense Sowerby by S.P. Dance

Correspondentieblad Van De Nederlandse Malacologische Vereniging
This is the issue no. 83, Sept.1959 of the mimeographed publication of the Netherlands, edited by L.J.M. Butot,Nassaustraat 10, Vleuten. The editor of this journal succeeds in getting the news of conchologists and conchological events in Europe in a manner that makes it of great interest and it must be unusually so for those residing in Europe. Publications are reviewed . However, there are some complete papers of great interest. One in this issue is - Voortplanting En Ontikkeling Van De Larven B ij Mariene Prosobranchia by Prof. Dr. Gunnar Thorson. And a paper, De Fossielen Van Het Parijse Eoceen by J.G.J. Kuiper.

The Appearance of the Giant African Snail in Arizona by Albert R. Mead. Proc. Hawaiian Entomological Society for 1958.
The outbreak has been controlled but they can live in Arizona.

Late Pleistocene Invertebrates of the Newport Bay Area, California by George P. Kanakoff and William K. Emerson-Los Angeles County Museum, Contributions in Science, No.31, Oct.14, 1959. 48 pages, 5 ill.
This is a scholarly work in which the authors discuss the Pleistocene history of the entire district, refer to the publiactions of former workers, and arrive at some interesting and quite surprising conclusions. The large number of locally extinct species that are now living farther to the south in warmer water is alone a matter for serious thought, but no doubt conclusions regarding the climate of the past for our own immediate locality intrigues the immagination of all of us. The astonishing number of taxa found in this locality by the authors must be a record. Whether one is interested in mollusks or not this is a paper that should be read by all persons of inquiring mind.

Studies on the Gyraulus species of Lake Ochrid. Morphology. by Bengt Hubendick and Pavle Radoman. Arkiv För Zoologi, Stockholm, 1959. pp 223-243, 42 text figs.
This is a very interesting paper, scholarly for the professional, and informative to the amateur who has collected this genus.

Notes on some Hydrobiidae from Kenya and Ethiopia by Bernard Verdcourt. Rev. Zool. Bot. Afr., LVIII, 3-4, Dec.1958 pp 299-309, 3 pls. 5 new species are described and carefully figured. A few duplicates of this paper are available from John Q. Burch at .50

Descriptions of two new taxa of *Tayloria* Bgt. together with a synopsis of the genus by Bernard Verdcourt. Rev. Zool. Bot. Afr. LVIII, 3-4, Dec.1958. This is a well illustrated paper covering all species of this group of the Streptaxidae. Key to all species is included with descriptions of several new species. A few duplicates of this paper are available from John Q. Burch at .75

Herausgegeben von Dr. H.P. Plate im Pflanzenschutzamt Berlin-Berlin-Zehlendorf, den 23, Juli, 1959. Nr. 14--Mitteilungen Der Berliner Malakologen. This is a mimeographed publication, pp.1-25 and contains a number of well prepared papers as follows: Noch enimal *Vertigo rönnebyensis* Westerlund von H. Herold; Beitrag zur Kenntnis der Molluskenfauna des Eichsfeldes von G.Korning; Beitrag zur Biologie von *Iberellus minoricensis belearicus* L. Pf. von E/ Fromming; Beitrag zur Kenntnis der Molluskenfauna des Fichtelgebirges von S.H. Jaeckel; Die Land-Mesogastropoden und Land-Basommatophoren Estlands von C. Klausp; Rote *Arion rufus* L. in Berlin-Wittenau von E. Frömming..

Uberdas Lebensalter unserer Groben Tellerschnecke und die Bedeutung der sogen, Jahresringe für die Bestimmung desselben - E. Frömming. Zeit. Für Fischeri..Band VIII(1959)

Dr. Richard A. Boolootian has been the guest speaker of the club on occasions, and always an interesting speaker. We have a number of his recent publications. 10 papers on the biology of various species of echinoderms and several others on marine mammals.

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Many of us know Claude S. Fowler as an enthusiastic collector and student of shells. We were saddened to receive the following note, " H armony passed on to her final rest on Monday, October 26th at Good Samaritan Hospital, Portland, Oregon. Her funeral was on Friday, Oct.30, 1959." . Claude is now stationed in India - Ritz Hotel, Churchgate, Bombay 1, India.

New Publication

The Concluding Part of W. Wenz, Gastropoda continued by A. Zilch.

As dealers in books we have received countless requests for copies of Wenz, Handbuch der Palaeozoologie. 20 years have passed since the publication of the first installment of W. Wenz treatise of the gastropods. Because of World War II, only subvolume 1(Introduction and treatment of the Prosobranchia, 1938-1944), with 1639 pages and 4211 figures, could be completed. The stocks of this publication were destroyed through war activities. The result has been that this work has become one of the genuine rarities in books.

The original work is not available complete, and there seems to be no assurance that it will be republished, but perhaps it will be done. The work now being published will be described below.

Wenz has been indispensible to both paleontologists and neontologists. Nothing comparable has been published for many years. We are all more familiar with Theile's Handbuch which considered the Recent genera. Wenz covered both the fossil and recent genera of gastropods(omitting only those without hard parts). All taxonomic categories above the subgenus are described, the type species are listed, typical species figured, and both the fossil and recent range of distribution are indicated. References to the original descriptions of the genera and subgenera can be found in a detailed bibliography. Paleontologists are able with this work to place their findings in the zoological system, and zoologists can survey the extinct members of the recent groups with which they are dealing. Now to the work on the table before me at the moment and just received.

Dr. Adolf Zilch, after the death of Dr. Wilhelm Wenz, has used the latter's manuscript notes, including the literature up to 1938, to conclude the work in the spirit of the original author. Subvolume 2 (Euthyneura), now in press, will complete the work. The literature up to 1958 has been considered in this volume. As in subvolume 1, typical representatives of nearly all treated genera and subgenera are figured mostly from original specimens. The volume with about 2800 figures will appear successively in five installments.

Now for the bad news in one way. The publishers in Germany have set the price at DM 84.00 for each installment. This is approximately $21.00 in Germany. Those who wish this work may order it direct from Germany, or I will get it for you. However, in order to import this work, pay postage from Germany and from here to the buyer, would mean that if ordered from JQB, the price will be $25.00.

Now to discuss the first installment now before me. It is bound in paper wrappers, 8vo, 200 pages, 701 text figures. The title page reads -Gastropoda von Wilhelm Wenz-Teil 2-Euthyneura..Adolf Zilch. I am frank to admit two things about this work. In the first place I would not be without it, but in the second place it seems to me that the price is exorbitant. Who said that we have inflation in this country ? The entire five parts will make a book no thicker than most, and unless my arithmetic is poor, will cost well over $100.00. If I am mistaken will let you know.

****

Walter Eyerdam sent a clipping from one of the Seattle papers. Three Sentenced for Stovepiping Lowly Geoducks. I have known for years that there is a law in Washington forbidding the use of stovepipes in clamming. I must have a latent tendency toward crime, because I would like to try out a stovepipe. Insofar as I know we have no law against it in California, but it is difficult to state about such as that. The California fish and game laws make a book the size of Websters Dictionary. Wonder if anyone, even the fish people ever managed to read it all.

Octopus vs. Sun Starfish

by Walter J. Eyerdam

Upon reading the Dr. Kenneth S. Norris account about California octopuses and their acute aversion to starfishes, I was reminded of an incident that I witnessed in Alaska. In 1918 while working as a cooper at a herring saltery on Lisanski Strait,Yakobi Island, S.E. Alaska, I saw in about twn feet depth of water alongside the dock, a small Octopus hongkongensis attack a much larger starfish, the sun star, Picnopodia helianthoides . The battle lasted for hours but the octopus succeeded in tearing many of the arms off of the starfish and killing it. Then it proceeded to devour the contents of its adversary's stomach.

The sun star often grows to be 2 1/2 feet across in Alaska and is oi of assorted hues. It has about 30,000 ambulacral sucker feet and there are thousands of little sharp spines imbedded in its top side skin which is coated with a jelly like flesh. They occur in great numbers and have voracious apetites. Their food is mostly blue mussels and barnacles and almost any kind of mollusks they come across as well as scraps of fish. When butter clams, Saxidomus giganteus are so prolific that the largest ones are crowded up in the clam beds too near the surface, the sun stars sometimes come and plow up the beach. On Raspberry Island, Kodiak group near Iron Creek, I once aaw hundreds of holes in the sand that I first thought clam diggers had made. Upon further investigation I found in the occupies holes large Pycnopodia , most of which had a full grown butter clam in his invertable stomach. This was a good example of performing nature's balance, and only happens when the beach is too full of clams.

The Octopus has a formidable rival in the sun star in his competition for catching food, and the octopus which is very sensitive and easily frightened . Not only will an octopus scoot out of his lair when in contact with certain starfishes, but he will leave his home as quickly when a large Holothurian (sea cucumber) is placed in or before his lair. I do not know what this animal could do to an octopus. The battle between the octopus and the starfish that I saw was fought on clean sand and the starfish was on his back and could not fight back very much so perhaps much depends upon these conditions. This instance may also be of rare occurence. Perhaps experiments could be made in a large marine aquarium.

I caught a 12 foot octopus on the end of a pike pole in 1931 at Port Hobson,Sitkalidak Island,Alaska. They are easily taken that way as they wrap themselves around the pole when struck. When I got ashore I dragged him up on the beach and after killing it with a club ate some of the white mantle flesh raw. It is much better than raw oysters.

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In a personal letter from Walter Eyerdam he mentions," Received the Minutes and have read them with considerable interest. Your comments and suggestions concerning species and generic concepts are very desirable. ...I strongly advocate conservative genetic and rasenkreis studies for budding taxonomists and for biotic groups of organisms that are in a rather explosive stage of never ending variants like Thais lamellosa and certain families of insects and land snails such as Cerion and possibly Urocoptis. I think such assemblages of intricately mixed variants which are impossible to unscramble should be studied more in the nature of clines like Kincaid has done with T. lamellosa with the high compliments of Ernst Mayr and Bernard Rensch...."

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Conchological Club of Southern California
Nov.3,1959 Minutes

The meeting was called to order at 7:35 P.M. by the president, Dr. Donald Shasky,who welcomed Sandra Kelp back after having spend several months around Canton Island and environs. There were 49 members and guests.

The minutes of the Oct. 6 meeting were approved as read.

Crawford Cate introduced the speaker of the evening, Mrs. Louella Saul, Geology Department, U.C.L.A.,whose topic was " Molluscan Problems of the Type Chico". Her task was to collect and identify fossils from the Cretaceous outcroppings near Chico,California; and from this work, to determine the stratigraphic and geologic history of the deposit. To do this,the paleontologist has a choice of any or all of three approaches: stratigraphic,phylogenetic, and ecologic. In the stratigraphic approach one looks for index fossils These are species peculiar to or characteristic of a certain geological horizon or zone. Thus, when a specific index fossil is found in a bed or formation a definite age can be assigned to that stratum In the phylogenetic approach,one traces ancestry or lineage,determining which species evolved from which other species. For instance the earliest horses (Eocene) had four toes while present day horses have but one. Thus any fossil horses with fewer than four toes were in the process of evolving into the modern horse and were younger than Eocene but older than Recent.

In the ecological approach ,one attempts to determine by association and comparison with present day knowledge ,the habitat at the time the fossils were living-whether a shallow or deep water fauna is represented,whether it is tropic or arctic etc.

Mrs. Saul used all of these approaches in her work,Cretaceous outcroppings are known to occur at a number of localities in California. The principal areas lie between Point Conception and east of Santa Ana,easterly from the San Francisco Bay area and in Butte County, east of Chico. It was primarily in the Chico Creek ,Deer Creek, and Butte Creek areas that Mrs. Saul made extensive collections and observations.The Cretaceous beds here are covered with volcanic material, but the major creeks have cut through the volvanic and exposed the underlying sedimentaries. These Cretaceous beds were estimated to be 4,000 feet thick and to have taken 10 million years to deposit. In most of the strata, gastropods heavily outnumber pelecypods, but in the fine grain sandstone (the youngest deposits) gastropods and pelecypods are present in nearly equal numbers. A series of color slides was used to show the general topography,scenery and many of the fossil mollusks collected at different levels. Of interest among the older material were specimens of Martesia fossilized in the wood they had been boring. A number of the mollusks are undescribed, and others represent the first time the family or genus has been found in the Cretaceous. Mrs. Saul concluded that ecologically the formation breaks down into four faunas- the oldest being a near shore mixture,followed by a sandbar fauna,and two offshore groups representative of 4 to 20 and 20 to 40 fathoms respectively. The finegrain sandstone fauna typified the 20 to 40 fathoms depth and was the most recently laid down. The sea was believed to have had a generally north-south running shore line,and with time,to have moved easterly leaving a deeper water fauna superimposed on shallow water material. It is Mrs. Saul's opinion that the water was fairly warm but not tropical. Mrs. Saul was given a fine ovation upon conclusion of this interesting and informative talk. (con.)

Crawford Cate explained the displays brought by various member s; Crawford Cate (Cypraea saulae and contaminata); Helen DuShane (Gulf of Calif. Conus and other fine shells); Emory Chace (Polinices recluziamus and Polinices alta of Pilsbry); Rose Burch (Pterynotus trialatus , growth series) ; Roy and Forrest Poorman (Gulf of California shells); Don Shasky,(new species of Murex known only from deep water off Salina Cruz,Costa Rica and Panama).

Rose Burch introduced the 13 guests and an intermission was declared from 8:45 to (.00 P.M.

After the break George Kanakoff,Chairman, reported for the Nominating Committee (Kanakoff, Wendell Gregg and Rose Burch) on the selection of officers for 1960. These were: Crawford Cate, president;Gale Sphon, vice--president; Sandra Delp,secretary; and Ruth Shasky, treasurer. John Burch moved that this slate be accepted and the nominations be closed. The motion was seconded by Rose Burch. At this point Sandra Delp informed theg group that it would not be possible for her to serve as secretary in 1960 and in due course her name was deleted. The now amended motion was approved unanimously and a new name for secretary will be submitted by the nominating committee at the December meeting.

Tentative plans were made for the Dec. 1 session, a dinner meeting, to be held in the museum cafeteria. It will be the annual Christmas party and the program will include an exchange of gifts, a report on Canton Island collecting including Kod$_a$chromes , and some Kodachrome slides from Brazil.

Mr. C.R. Olmstead, Miss Joan Troesch, and Miss Vickie Thomas were welcomed as new members. Mr. and Mrs. Neil Black reported they had been on a 19 month, 30,000 mile tour of the United States, including some shelling along the Florida coast.

Dorothy B rown won the door prize.

John Burch, George Kanakoff, and Emory Chace reported upon new and recent publications. Of greatest interest was one by Kanakoff and Emerson on " Late Pleistocent Invertebrates of the Newport Bay Area, California." The meeting adjourned at 9:45 P.M.

Respectfully submitted, John E. Fitch, Secretary.

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Comments on Polinices (Neverita) alta (Pilsbry 1929)

By E.P. Chace,Nat. Hist. Museum,
San Diego, Calif.

" Your last shell sales list was in yerterday's mail and in looking it over last evening I find two things to comment about.
First- I am glad that you made the statement that in the main you are following Thiele. I am also.
Next. Polinices (Neverita) var. alta Arnold. Look up the Nautilus for April,1929, Vol. XLII, no.4. Arnold mentioned that Dall had called a tall shell var. alta in his Paleontology and Stratigraphy of San Pedro, Calif.1903. Neither Dall nor Arnold gave an adequate description and in my opinion alta Dall or alta " Dall" Arnold is a nude name. In the Nautilus, April,1929, Pilsbry tried to validate Dall's name. H e published a description and gave a figure, so if the name alta is any good, it should be alta of Pilsbry. Personally I am sure that the 8 words used by Davy in the 1909 paper " Miocene of Coos Bay Oregon, p.88, can qualify as a description. The shells that Dall had might have been a very tall P. recluziana with a closed or almost closed umbilicus. I have seen many such shells. (U.S. Prof. Pap. #58." End Chace comment.

I am disposed to accept the conclusion of Mr. Chace and assign the species to Pilsbry as the authority. Neither Dall nor Arnold figured the shell. The description was simply " a variety with an elevated spire." As Mr. Chace points out , there is no (con)

assurance that Dall did not simply have a typical imperforate specimen with a high spire. However, before we dispose of the matter entirely it might be well to see whether or not Dall may have designated a type labelled " alta".

It should be added that alta is taken with the typical, and I have never seen an intergrade. As Dr. Pilsbry stated, if this be true, alta should be considered a distinct species and not a variety. Therefore, we have: Polinices (Neverita) alta (Pilsbry 1929) . Pilsbry accepted in this paper Neverita as a genus. My preference is that it should be a subgenus. J.Q.B.

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Durability of Paper by J.Q.B.

Some time ago I was amused at a criticism of this mimeographed journal because of the lasting qualities of the paper. This was and is a matter of no particular importance inasmuch as we have at no time thought that our informal discussions would join the book shelves with the immortal classics.

However, in a reply to this criticism from the heights of some ivory tower, I stated a simple fact. As a bookseller, I have had on my shelves the publications of eminent scientific organizations in beautiful letter press printing and the finest of bindings that are simply disintegrating within a few years after publication.

A series of articles have been appearing in the Publishers Weekly pertaining to this problem. A scientific study of book papers from paper manufacturers ranging from Maine to Florida and west to Michigan is being made. The brand names include those long known as suppliers of papers for the finest printing.

A review of the many studies would be of little interest here, being a matter of primary interest to publishers alone. However, a simple quotation at random may outline the problem to some extent. Publishers Weekly, 1959," ...Diagnosis is interesting, but treatment is vital. Much of the course of the disease was already known. For example, the life cell, the modern cellulose fibre itself, was already suspect. Its forebears, as generated from the clippings of clean linen and cotton cloth, were known to be sturdy and enduring. Its descendent, ground from wood and incubated in hot chemicals , was known to be something of a weakling. Yet essentially they were of the same stuff. What were the other life giving elements that made up an enduring paper complex? An examination of very mature and very healthy paper stocks seemed clearly in order ..."

In conclusion, it may be of passing interest that I have in stock beautifully printed bound books younger in years than the early issues of these Minutes that will simply crumble in handling.

After forty years as a bookseller I can point out many printed descriptions of new species etc. that had better be preserved in photostat while that is possible because the paper will not last.

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SOME RANGE EXTENSIONS FOR PANAMIC PROVINCE MOLLUSCA

BY A. Myra Keen

In the introduction to my book last year I predicted that our knowledge of the ranges of tropical West American mollusks would prove to be very incomplete. One extension after another has come to my attention. Some that are of unusual interest have come recently from two sources, and it is my priviledge to put them on record:

The first group was taken by Mrs. G. Riley Hettick, of Phillips, Texas, an enterprising newcomer among collectors who has not only submitted the shells to me for verification but has been liberal in dividing her holdings with Stanford University whenever she had extras.

1. *Noetia olssoni* Sheldon and Maury , range extended northward from *Panama to Mazatlan* and San Blas,Mexico. The largest specimen measures over 30 mm. in length, as contrasted to the 15 mm. of the holotype.
2. *Ctena clarionensis* Hertlein and Strong .One valve that matches *well the original figure* was found at Acapulco. The type locality is Clarion Island.
3. *Tellina (Scissula) varilineata* Pilsbry and Olsson . Several *valves from San Blas ,Mexico,* extend the range northward from Panama.
4. *Leptomya ecuadoriana* Soot-Ryen. Nearly a dozen valves were *found at Mazatlan and* San Blas, again extending a range north from Panama.
5. *Thracia colpoica* Dall, hitherto reported only in the Gulf of *California, ranges* south at least to San Blas, where two valves were taken, one of which has been accepted by Stanford University on a permanent loan basis.
6. *Quoyula madreporarum* (Sowerby), form *monodonta* Blainville, *taken at Acapulco. Authors* are not in *agreement* as to whether this is a valid species, a sub-species, or a mere variant with a conspicuous tooth at the lower end of the columella. I have not noticed a mention of the toothed form in West Coast records, though it is not an uncommon one among the Quoyulas of the Central Pacific.

Mrs. Hettick also has found *Bankia mexicana* and *Pholas chiloensis* in mangrove roots at San Blas*, a most unusual habitat for the* latter. These are not, however, extensions of range.

On a brief trip to La Paz, Baja California, early in November,1959, under the auspices of the Belvedere Scientific Fund,I met Mrs. Richard M. Adcock, a local collector, who showed me an exceptionally fine specimen of *Cypraea isabella mexicana* Stearns found near La Paz by her husband*, among the branches of* coral. My first thought was that here was a prize some California cowry collectors would like to bid on, if it was for sale. However, after the sponsor of our expedition had presented a copy of " Sea Shells of Tropical West America" to Mrs. Adcock, she generously reciprocated by donating the shell to the Stanford Museum. I could hardly refuse it even had I wished to ! It has already received much admiring comment and constitutes, I believe, the first record of the species in the Gulf. Another specimen, which I did not see, was also found by the Adcocks. As Mr. Adcock is a skin-diving instructor, there is a good chance he may find additional material. Collectors who wish to correspond with Mrs. Adcock may address her at Off.Edificio " Perla", La Paz, Baja California,Mexico.

Comments on Cypraea isabella mexicana Stearns

By Mrs. John Q. Burch

The morning of February 21,1951, Mr. and Mrs. Merrill of Michigan were our guests on their way home from a collecting trip down the west coast of Mexico. They flew across the Gulf of California to collect for several days at La Paz, Baja California. There they found some interesting specimens. Among them was a lot of three beautiful specimens of Cypraea isabella mexicana Stearns .These had been taken alive with the living animals still in the shells. The Merrills very generously gave me one of their three which has a place of honor in the collection. This I displayed one year at a meeting of the A.M.U.P.D. annual meeting with a few remarks at that time.

Besides the above specimen I have this species from:

4 specimens from Clipperton Island, C.F. Harbison, Aug.1958.

6 specimens from Baja California,Mexico , bought from George Jacobs in 1957.

2 specimens from Bahia Culebra,Costa Rica, collected by Ted Dranga in 1953.

2 specimens from Clipperton Island collected Sept.2,1896 by J.S. Armhein. These were in the Raymond collection, and were gifts of Ruth Coats, Nov.1950.

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Range extensions by Dr. Keen continued.

On this La Paz expedition, members of our party collected some eight specimens of a *Pseudochama* that did not look to me to be the common form. Upon study it proves to be, indeed, a new record-*Pseudochama panamensis* (Reeve) , hitherto positively recorded only in Panama. The shells, which were found at the head of Candelero Bay,Espiritu Santo Island, match Reeve's figure and description well, being whitish, with purplish-brown stains in some specimens along the smooth inner margin. One or two specimens show a tendency toward faint brown pencilling on the outside. The description in my book, which was based in large part on a specimen that now appears to have been wrongly determined, is, therefore, somewhat inaccurate. We found these shells to be not uncommon at the site where collected,attached to outcroppings of a volcanic tuff along the upper mid-tide level. None of the specimens were alive, however,although the valves were intact-perhaps the result of fresh-water flooding during an earlier storm. The largest specimen measures 50 mm. in length. This may be the form that has been identified as *P.exogyra* in the Gulf (Dall cited the range as California to Panama), but it certainly is not the Californian *P. exogyra*, for the latter lacks any color markings and has the spines evenly distributed. In *P. panamensis* there is a row of large triangular spines at the edge of the attached portion and a few small spines on the unattached valve, with an almost smooth area between.

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Descriptive Terminology for Mollusks

By John Q. Burch

It is often stated that systematic zoology is a language of science. If this be true, it should follow that the system establish a means of communication. This object is defeated when the same word or term is given more than one definition.

Divergent views of whether certain characters are important or trivial may be expected as long as the personal element persists in observers, but misunderstanding caused by a confused terminology seems unnecessary.

All specialties have a glossary peculiar to the animals involved. The necessity for this is appreciated by all, but the use of the same word or phrase conveying very different ideas should be avoided.

A glossary of terms used in the study of the early whorls of gastropods would, unfortunately, be compelled to give several definitions of the same part as used by various authors. It would seem logical to accept the work of L.R. Cox in his paper in Proc. Mal. Soc. Lon.,1955, " Observations on Gastropod Descriptive Terminology", or some other uniform system.

At the meeting of the American Malacological Union, Pacific Division at the University of Southern California, June,1954, I read a paper describing a new " form" of a well known species. In this paper it was expressly stated that the name " forma robinsona" was not described as a subspecies, and under the present International Rules a trinomial name should not enter the record as a subspecies unless so stated by the author. Professor Trevor Kincaid in 1957 published a scholarly study under the title," Local Races and Clines in the Marine Gastropod Thais lamellosa Gmelin", and then proceeded to figure and discuss fifty-three distinct " morphs". They were not named.

Furthermore, the term " variety" is at present thoroughly intrenched in molluscan literature to indicate a form which exhibits differences from the type which do not amount to permanent structural differences in the organization of the animal. It may be suggested that the path of least resistance might be to continue the usage of generations of authors and retain the term " variety". This is certainly not a suggestion that all infra specific variants be given trinomial names.

The genetic organization of many species is known to permit a very wide range of variation. At the moment I have on my work table a series of sixty variants of one species of the genus Oliva. Five of these have been given names by older authors, and may I be permitted a pious hope that no one will feel the urge to name the other fifty five. My conception of a subspecies is certainly not one of these, unless one of them should become isolated and the predominant form in one locality.

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Inflation ? Uncle Sam does not mean to be left out of the inflation spiral. 17% Rise in Parcel Post Rates. Effective Feb. 1, 1960,Postmaster General Summerfield announced that rates for parcel post and fourth-class matter..would be increased by an average 17.1% to cover a current " deficit". I wonder if we are not on the way to that $1000 stamp.

Conus mus Bruguiere 1792 or Conus citrinus Gmelin 1791
We have no thought of questioning the assignment of this species by Clench in Johnsonia, No.6,p.7 to C. citrinus , but to identify the species , we will here use the name C. mus , a name under which it is so much better known.

I have been puzzled and in error regarding the identity of some specimens sent to me with Conus gladiator and said to have been taken on the Pacific side of Panama. However, this should by no means be accepted until definitely confirmed because many of our Panama collectors send us material from both the Caribbean and the Pacific side and it is always possible that they may have been mixed. Nevertheless it made an interesting problem and we are indebted to Mt. Anthony D'Attilio of New York for the solution. We sent a number of specimens to Mr. D'Attilio including one of the puzzles. His letter (in part- personal communication) follows.
" The single specimen which I returned before suddenly struck me with a sense of familiarity and on comparing it with Conus mus from the Caribbean, I saw that I was right in my suspicion. In Hanna and Strong's book on the West Central American cones they quote their own opinion as well as Dall to show that Conus gladiator is very close to Conus mus (i.e. Conus citrinus according to Clench). The coloring in Conus mus , as well as your single specimen, consists of a brown shading over the blue grey ground color; the spiral whorls have four incised striae and this is the same in a number of other examples of Conus mus examined. Now as to the other two cones you sent I find on comparing these with four specimens in my own collection that they are apparently Conus gladiator. The color of these specimens is very similar in general, consisting of a white shell with brown shading. The spiral whorls have only two strong spiral chords on all six specimens studied.

My conclusion is that unless there was an accident in which the single specimen was mixed with Panamic shells, we are to presume that the Caribbean Conus mus is to be found on both sides of the Isthmus of Panama. I am most curious tp know which of the two is the true explanation.

Of course, there are other small differences between the two species, one of which appears to be a greater convexity of the body whorl in Conus mus. It is true that many of these characters are variable by themselves, but I think we can judge with some claim to validity if a number of characters agree within one species as compared with another. I quite agree with you in your acknowledgment of the difficulties of fitting the many local and population variations into a precise definition of the species when you have so many lots to consider." End D'Attilio quote.

*** We have a number of the shells of Conus mus in this lot. The problem is obvious and interesting. Does Conus mus occur on the Pacific side of the Isthmus of Panama ? Please examine your collections and let me know. J.Q.B.

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Antiquarian Bookman quote- " Moscow, Nov. 21 (UPI)- The official Soviet press agency Tass reported today that the All-Union Institute of Scientific and Technical Information in Moscow had an editorial staff of 18,000 specialists. The institute publishes scientific reference material."

*** Incidentally, I might add that some of the Soviet publications on mollusks are remarkably thorough. The language barrier is to be regretted. Perhaps in time English translations of some of them will be available. J.Q.B.

American Malacological Union 1960

We have a letter from Dr. Katherine V.W. Palmer, President and quote in part.

" Enclosed is a brief preliminary schedule of the American Malacological Union meetings in Montreal. There are to be other items but but the final arrangements have not been made so we did not include them at this time. However, it seemed well if the West Coast people were informed in regard to the time and place of the meetings so that they could make plans accordingly...."

Greetings to Members A.M.U.
Preliminary arrangements of meetings, guests of McGill University Museum in Montreal, August 9-12, 1960.
Registration and sessions- Redpath Museum
Rooms available- Royal Victoria College Dormitory
Field Trip- Mont St.Hiliare in Monteregian Hills.
Banquet- Helene de Champlain, l'ile Ste. Helene (Restaurant.)

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We have a letter from Margaret C. Teskey, Secretary of the A.M.U. regarding the popular booklet How to Collect Shells. It has beeen out of print as many of you may know who have written JQB for a copy.

A revision brought up to date is almost ready for the printer. Much new material has been added, ranging from directions for collecting fossil shells and the delight of finding living specimens by employing SCUBA equipment to a study on organizing a shell club. The long list of recommended literature has been brought up to date, other new additions.

It is planned to keep the selling price of this enlarged edition at $2.00, thus it will be a " must" for everyone who is in any way interested in mollusks or their shells.

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Pseudostomatella papyracea " Chemnitz" in Adams

I sincerely appreciate it when my friends correct the taxonomy in my sales lists. If you are one of those who ordered a shell from me listed as Stomatella sulcifera (Lamarck) from Zamboanga, Philippines, it is suggested that you change the label to read as above.

I am indebted to Robert Talmadge for catching this one and his diagnosis follows:

" Pseudostomatella papyracea " Chemnitz" in Adams. Range: Sulu Sea, north to Cebu (rare), and south through Indonesia to northern Java. The range is probably greater, but specimen material is lacking from many of the possible stations.

Anton, in 1839, noted that Lamarck had failed to designate a type for the Stomatella , so he gave as the type of the genus, Stomatella lutea Linne' = auricula Lamarck. As the Gena lutea Linne' cannot be identified, the auricula Lamarck is then the type of the genus Stomatella. (Incidentally, Anton referred to the figure in Martini which turns out to be the " Black" phase of G.planulata Lamarck. This left us without a name for what we had been calling Stomatella, so Thiele gave us the name Pseudostomatella with the papyracea Adams as the type of the genus.

For the species, I have checked back through Pilsbry's Manual of Conchology, Vol. XII, Sowerby's Conchologica Iconica, Adams in the Proceedings of the Zoological Society of London, and back to the original in Chemnitz Conch. Cab. Although I have never seen nor worked with a true sulcifera Lamarck , the figures etc. that I have seen indicate a more depressed, stronger cprded type of (con.)

shell, more like the Stomatina ruber Gray. Maybe some day we will have the names stabilized. Incidentally , I have yet to see two *papyracea* that are exactly alike,some pure red, others green, and all sorts of color combinations. From what I can see the *baconi* of West Australia is only a race of this species." End Talmadge quote. *** I thank you, Bob, and have accepted your solution. It is perhaps as well though that I refrain from mentioning the collection of the eminent institution from which I made my original notes. I am considering them in error as well as my first assignment, and it is of interest that the shells are type species. J.Q.B.

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Conchological Club of Southern California
December 1,1959
Minutes

At 7 P.M. 50 members and guests gathered at the Museum Cafeteria where a delicious turkey dinner was served. At this time all persons had the opportunity of selecting specimen shells of several species brought from Canton Island by Sandra Delp. At approximately 8:30 the meeting was moved to an ante room where it was more convenient to proceed with our Christmas festivities.

The president, Dr. Donald Shasky, called the meeting to order and thanked Mrs. DuShane for making arrangements for such a fine dinner. He then expressed the appreciation of the club to Mr. Crawford Cate as Program Chairman and Mr. John Fitch as Secretary, for doing such fine jobs during the past year. Mrs. Chace pointed out that in devoting so much of his time to the job of Secretary, Mr. Fitch necessarilly had to forego several of his other projects he had planned for the year.

Dr. Shaskey, in reviewing some of the club's activities for the 1959 year , mentioned the writing of the new constitution , and expressed our regret at the absence of Dr. Gregg and Mr. Kanakoff , who were members of the committee whci drew up the new constitution. He also expressed the club's appreciation for Mr. Kanakoff's fine job as Chairman of the Lost Operculum Society, which was brought to life again this year. Thanks was also conveyed to the other group chairmen who served during the year, especially to the treasurer, Dr. King, who ended the year with greater funds in the treasury than the previous year.

Mr. Crawford Cate acted in the capacity of president for the rest of the evening, although, it was pointed out by Mrs. Burch final elections had not yet been held,pending nomination of Secretary. Mrs. Burch, acting as spokesman for the Nominating Committee, then nominated Mrs. Helen DuShane for the position of Secretary. The nomination was seconded, and was followed by a unanimous election of the officers for 1960. They are: Mr. Crawford Cate, --President; Mr. Gale Sphon--Vice-President;Mrs. Helen Du Shane,--Secretary-- Mrs. Ruth Shaskey--Treasurer.

Mr. Cate expressed our appreciation to Dr. Shaskey for his exceptional devotion to his office of President during 1959. He also made the announcement that neither he nor Mrs. Cate would be able to attend the January meeting since they would be in Honolulu attending the January meeting of the Hawaiian Shell Club. Next, Mr. Cate read some of the facts and figures pertaining to attendance of the meetings during 1959. Those with perfect attendance record for 11 meetings in 1959 were: Dr. Bruce Campbell, Mr. and Mrs. J.W. Du Shane, Mr. and Mrs. E.H. Kuebler,and Mr. and Mrs. Donald Shaskey. Members in good standing as of Nov.,1959(con

were 101. Dr. Shaskey read an announcement of the annuam A.M.U. meeting sent to him by tye president, Mrs. Kathleen Palmer. The meeting will be from Aug. 9 to Aug. 12, 1960 in Montreal, Canada.

At the close of the business meeting, there was a drawing for shell gifts which were brought by all of the members and guests. After admiring all of the gifts, the members were shown color slides of Canton Island by Sandra Delp, who spend two months there shelling during the summer. Following this program the Cates showed interesting color slides sent to them by Dr. Rios in Brazil.

After the showing of the slides, MR. Todd Showalter was welcomed as a new member of the club. Mr. Burch announced the closing of his place of business, 1584 W. Vernon Ave. in Los Angeles and sai d that henceforth business would be conducted from his residence, 4206 Halldale Ave., Phone Ax. 3-5710.

The meeting was adjourned at approximately 10-30 P.M. It was discovered after the meeting that the minutes of the November meeting had not been read and approved. This will be taken care of at the January meeting.

Respectfully submitted, Sandra M. Delp, Secretary Pro Tem.

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California Academy of Sciences- San Francisco

Repeated visits to the California Academy never fail to leave us amazed at the rapid expansion and scientific accomplishments of this great institution which must be acknowledged as ranking close to the best in the world. Some of the departments have no peer anywhere.

It was our priviledge to study in the new library building, which is large and modern in every respect. A lover of fine and rare books could spend weeks on end here, and then be astonished at some of the great rarities encountered later in the departmental libraries. Each department has its own specialized library. Of course, we spent most of our time in the department of Paleontology where it was our rare priviledge to enjoy the advice and assistance on our problems of Dr. G. Dallas Hanna, Dr. Leo G. Hertlein and Allyn G. Smith.

The new buildings have given much additional room to all departments. The departments of Botany, Ichthyology, Entomology etc. are spacious, beautifully equipped, and each with a staff of known and qualified professional experts. Dr. Leviton showed us through the new Dept. of Herpetology, and we agree that there is no better laboratory in this field to be found anywhere.

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Australian Shells by Joyce Allan is again in stock. The new revised edition contains an alphabetical list of all species and genera with the names of the authors which were lacking in the first edition. This amounts to a check list of the Australian species. For easy reference the plates in this edition have been numbered. $12.00. Available from John Q. Burch.

Cowry Shells of World Seas by Joyce Allan is again in stock. If you do not have it, all interested in Cypraea will find this work of great value. Color plates. $10.50

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Directory of Conchologists -1960 edition, is now ready for immediate delivery. $2.50

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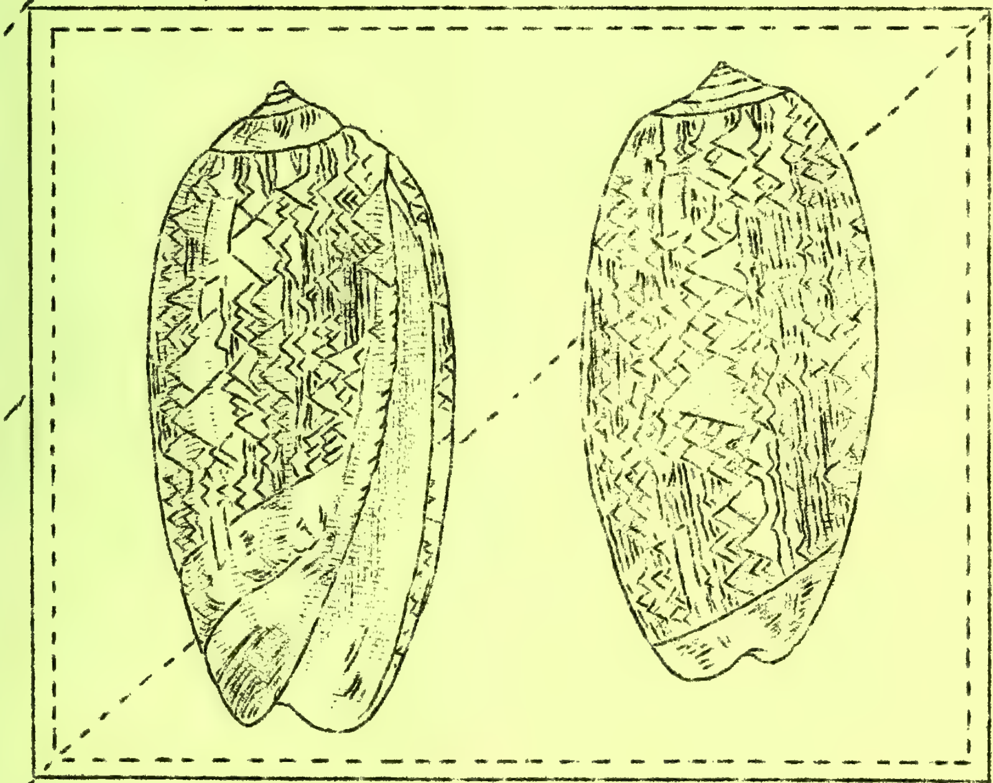
Conchological Club of Southern
California.
Minutes = Supplement

no. 196
Mollusks

CATALOGUE
OF RECENT AND FOSSIL
OLIVES



by

Complements of
John Q & Rose Burch

JOHN Q. AND ROSE L.
BURCH

Catalogue of Recent and Fossil Olives

By John Q. and Rose L. Burch

This is issue 196 of the Minutes of the Conchological Club of Southern California. Additional copies are only available at the price of $2.50. Those wishing the copies of the Minutes published during the past two years and dealing with the family Olividae may purchase them for an additional $5.00, or $7.50 complete with the catalogue.

Our work to date is a preliminary outline in which we have attempted to assemble the literature, and indicate some of the problems to be solved. No new names have been suggested.

It is our opinion that there are a number of species to be described as new, and others that may prove to be variants of one species. These should be studied with care and published with proper illustrations.

CATALOGUE OF RECENT AND FOSSIL OLIVES

By John Q. and Rose L. Burch

We have included the fossils because we wished to list as near as we have been able to do so, everything that has been suggested as a member of the group. Some names have been listed that were placed in the Olividae and have been found to belong to other families.

Repetition of full titles has been dispensed with in the case of the following authors:-

Duclos,P.L.,1835 Histoire naturelle...de tous genres de coquilles univalves marines a' l'e'tat vivant et fossile,publie'e par monograohies. Genre Olive. Paris.
" 1844-45. In Chenu,J.C. illustrationes conchologiques.Paris. Monographie du genre Oliva.
Lamarck, J.B.P.A.,1801 Systeme des Animaux sans Vertebres.
" 1811 [Suite de la] Determination des espe'ces de mollus--ques testaces: continuation du genre Porcelaine et des genres Ovule,Tarriere,Ancillaire, et Olive. Ann.Mus.Hist. N at.(Paris), vol.16, for 1810, pp. 89-114,300-28 (Jan.-Mar.,1811).
" 1816 Tableau Encyclopedique et Methodique des Trois Regnes de la Nature. vol.III,4to, Paris.Oliva on pls. 361-368.
" 1822 Histoire naturelle des animaux sand vertebres. Paris, 1815-1822. Vol. VII, Oliva, pp.416-440,1822.
" -do- Deuxieme edition- par MM. G.P. Deshayes et H.Milne Edwards. Paris & Londres,1835-45. Oliva, vol. X, pp.600--638.
Marrat, F.P.,1871 Monograph of the genus Oliva in the Thesarus Conchyliorum (editor G.B. Sowerby) Part 29 (plates i-xiv) 1870, Part 30 (plates xv to xxv) and text ,1871.
Olsson, Axel A.,1956 Studies on the genus Olivella . Proc. Acad. Nat.Sci. Phil., vol. CVIII, pp.155-225.
Reeve,Lovell,1850 Conchologia Iconica. Monograph of the genus Oliva.
" -do- Monograph of the genus Ancillaria, 1864.

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abyssicola Schepman 1911 Ancilla Siboba Exped. p.254 Recent, Malay Archipeligo
achatina Kiener 1843 Coq. Viv. p.19,t.3,f.4 Ancilla = Ancilla cinnaronea Lamarck
acra Woodring 1928 Mioc.Moll.Jamaica,Carnegie Inst. Wash.,p.230, pl.13, figs.8-10 Olivella Miocene,Jamaica
acteocina Olsson 1956 p.210 Olivella[Minutes 187,p.2]
acuminata Duclos 1835 pl.12,f.1,2 Oliva
acuminata Duclos 1835 pars. t.12,f.3 = Olivancillaria nebulosa (Lamarck). [Minutes 183,p.8].
acuminata Sowerby 1871 Ancilla Thes.Conch.t.4,f.66,67 [Minutes 183,p.9;191,p.20].
acuminata Lamarck 1811 Olivancillaria Ann.du Mus.,xvi,p.323 = Olivancillaria lutaria (Roding)1798 [Min.183,p.4;191,p.3]
acutula Stephenson 1941 Eoancilla Univ.Texas Bull.,Austin,p.361, pl.69,f.8,9 Upper Cretaceous,Texas
adelae Olsson 1956 p.173 Olivella [Minutes 187,p.2]
adelaidae Tate 1889 Trans. R. Soc. Aust. Olivella Gemmoliva Fossil,Adelaide bore [Min.193,p.3]

adiorygma Verco 1909 Trans. & Proc. & Rept. Roy.Soc.Australia
pl.25,figs.3,4 Olivella [Minutes 187,p.3;193,p.5]
adspersa Dautzenberg 1927 Jour.de Conchyl.,vol.LXXI
= Oliva carneola (Gmelin) var.
aegyptica Oppenheim Paleontographica Ancilla (Sparella)
Lutetian, Egypt
aegyptica Oppenheim Paleontographica Lampredoma Lutetian,Egypt
aequitorialis Olsson 1931 Bull.Am.Pal.,Ithaca,vol.17,no.63,p.116,
pl.20,figs.3,5,8,11 Olivancillaria Oligocene,Peru
aequitorialis Sheppard 1931 Geol.S.W. Ecuador,p.132,fig.98
Olivancillaria Oligocene, Ecuador
affinis Bellardi 1900 Rovereto Ill. Moll.Foss.tangr.p.176,tav.9,
f.6 Olivella
agaron Adanson 1759 n.n. (not binomial) = O.hiatula (Gmelin).
agaronia Duclos 1844 Chenu.Ill.Conch.vol.II,pl.3,figs.15,16
pl.5,figs.17,18. Recent.," la rade de Goree et Cap Vert".
Agaronia Gray 1839 In Zool. of Captain Beechey's Voy.,p.131.
Monotype, Oliva hiatula Lamarck= O. hiatula Gmelin
Subgnus of Olivancillaria d'Orbigny 1839 Type,Oliva
hiatula (Gmelin) [Min.183,p.3;186,pp.8-12;194,p.3]
agaronia Menke 1849 Zeitsch. f. Malk.
Agaroniinae Olsson 1956 Proc. ANSP,p.169. Subfamily of Olividae.
affinis Christofori & Jan. 1832 Cat. Mus.Sec.II(1) Conchfuss p.15
Oliva n.n.
affinis Marrat 1871 p.28,no.145,;pl.21(348),f.352 Olivella
= Olivella semistriata (Gray 1839).
agulhasensis Thiele 1925 Deutschen Tiefsee Exped., Taf.XXI,figs.
16,17 Ancilla = Ancilla fasciata Reeve 1864 [Min.191,19]
alabamensis Conrad 1833 Foss.Shells.Tert.No.Am.,(3) p.32,pl.16,
f.3 Oliva Tertiary,Claiborne,Alabama
alabamensis Duclos 1835 H.N. Coq. Oliva pl.18, bis. n. et f.
alabamensis Lea 1833 Monoptygma. Contr. to Geol.,p.186
alazana Cooke 1928 Proc. U.S. Natl. Mus., 73, 10,p.6 Ancilla
(Ancillina) Oligocene, Mexico
alba Ford 1898 (not of Marrat) Nautilus, vol.12,p.66.Olivella
= Olivella blanesi Ford 1898 [Min.189,pp.18-19]
alba Johnson 1915 Nautilus ,vol.28,p.101 Oliva =O. bulbosa (Rödding).
alba Lamarck * ref. in Gray Zool. Proc.44,1858 and in Tryon,Man.
Conch.,index,p.200, to Lamarck's sp.42 in Ann Mus Hist.Nat.
which is Oliva candida Lam/ The word"alba" is part of the
Latin description.
alba Marrat 1871 Thes.Conch.p.32,no.169,pl.22 (Thes.349) fig.390
Olivella [Min.187,p.3;193,p.9].
alba Perry 1811 Perry Conch.,pl.31 Not of the Olividae- is a
species of Bullia.
alba Sowerby 1825 Cat. Tankerville, p.86 = Oliva annulata (Gmelin
alba Williamson 1892 Proc. U.S. Natl. Mus.,p.212 var. of Olivella
biplicata (Sowerby 1825). = typical.
albata Vanatta 1915 Nautilus, vol.29,p.67. = Olivella blanesi
var. alba Ford 1898 ,non Marrat. [Min.189,pp.18-19].
albescens Johnson 1914 Nautilus, vol.28,p.99 = Oliva textilina Lk.
albicallosa Lischke 1868 Diagnosen neuer meeres Conchylien von
Japan,Mal.Bl.1868. Add. desc.Jap.Meer.Conch.,III,p.44,pl.2,
figs.24,25,1873 Recent,Nagasaki,Japan.Ancilla
[Minutes 133,p.10;194,p.5].
albifasciata Swainson 1825 Quart.Jour.Sci.,R. Inst.Gr.Brit.XVIII
(36), p.276 = Ancilla cinnamonea Lamarck.
albina Melvill & Standen 1897 Journ.Conch.,p.404= O.textilina Lam.

albisulcata (Quoy) Gray 1850 Figs.Moll.Anim., p.72,iv

albisulcata Sowerby 1830 Conch.Spec. f.14-19 Brod. & Sby.I(1) Ancilla- = A. cinnamonea Lam. [Minutes 191,p.21]

albocallosa Lischke (Tryon) err. pro. albicallosa in Tryon,p.94

albofasciata Dautzenberg 1927 Journ.Conchyl.,v.71 = Oliva oliva (L.)

albofasciata Swainson (Sowerby) Err. pro. albifasciata Swainson

albozonata Smith 1904 Jour.Mal.XI,p.29,pl.2,fig.9 Ancilla Recent,Port Alfred,So.Africa = Ancilla fasciata Reeve 1864 [Minutes 183, p.10; 191,p.19].

albozonata Turton 1932 Mar.Sh.Port Alfred,p.32,pl.6,no.228 (pattern var.) and p.32 = Ancilla fasciata Reeve 1864 [Minutes 191,p.19]

alcocki Smith Ann.Mag/Nat.Hist.,London,18,(172) Figd.Ill.Zool. M.I.M. Ship," Investigator", Calcutta,p.5,pl.XX Recent Bay of Bengal.

aldinia Duclos 1844 Chenu Ill.Conch.,t,26,figs.6,7 = Oliva fulgorator (Röding 1798)

alectona Duclos 1835 Monog.t.4,bis.f.15,16 = Olivella baetica (Marrat 1871). [Minutes 192,p.4].

algida Vanatta 1915 Nautilus, vol.29, p.71 = Oliva ispidula (L.)

allani O.P. Olson Paleont.Bull.N.Z.,p.30,pl.7,f.13,14 Lower Eocene, New Zealand Ancilla- Baryspira .

Alocospira Cossmann 1899 Essais de Paleo. Comparee, p.62,vol.3. Type by original designation Ancilla papillata Tate. Miocene. [Minutes 193,p.10].

alpina von Klipstein 1845 Beitr.Geol.Ostl.Alpen(2,3),p.205 Oliva

altile Conrad 1832 Foss.Shells.Tert. No. Am. Ancillaria

Amalda H. & A. Adams 1847 Gen.Rec.Moll. Ancilla Type,Ancilla elongata Gray 1847= A. muscae Pilsbry 1926 [Min.183,p.17; 193,p.11].

amblia Watson 1882 Jour.Linn.Soc. XVI,p.341 Olivella Recent, 350 fathoms off Pernambuco

amelia Duclos 1844 Chenu Ill.Conch,p.20,pl.36,f.1,2 Fossil-Paris

amethystina Röding 1798 Mus. Bolten.,p.35 = Oliva annulata (Gmelin)

amoena Röding 1798 Mus. Bolten.p.35, sp.399 Porphyria,Oliva .

ampla Gmelin 1791 Linn.Syst.Nat. ed. xiii,p.3467 Ancilla [Minutes 183,p.9;185,p.2;191,p.21].

Anaulacia P. Fischer 1883 = Ancilla Lamarck 1799

Anaulax Roissy 1805 Hist.Nat. des Moll. vol.V,p.432 = ANcilla Lam. [Minutes 193,p.11]

Anazola Gray 1858 P.Z.S. vol.26,p.50 Olivancillaria Olivancillaria acuminata (Lamarck) [Min.193,p.11]

anazona Duclos Err. pro. anazora in Sowerby Thes.Conch.,p.36

anazora Duclos 1835 Mon.Oliva,pl.5,figs.3,4 [Min.187,p.3-5;191,12]

ancilla Hanley 1859 Proc. Zool. Soc.Lon.,p.429 Sylvanocochlis (Pseudoliva) [Minutes 192,p.3].

Ancilla Lamarck 1799 Mem. de la Soc.Nat. de Paris,p.70. Type by monotypy, Ancilla cinnamonea Lamarck. [Min.185,p.2;194,p.4]

ancillaeformis Smith 1906 Bullia Ann.Natal.Mus. i,p.37,pl.7, fig.8. = Ancilla bullioides Reeve 1864. [Min.191,p.18].

Ancillaria Lamarck 1811 Ann.du Mus.,p.302 = Ancilla Lamarck 1799 [Minutes 194,p.4].

Ancillaria Risso 1826 Hist.Nat. des..de l'Europe Meridionale, vol.IV,p.231 Type by monotypy Ancilla fulminata Risso. [Minutes 194,p.4].

ancillariaeformis Lea 1846 Proc.Am.Phil.Soc. vol.p.165 (nude name) 1843 Trans. Am.Phil.Soc. vol. IX(3) p.274

Ancillarina Bellardi 1882 = Ancilla Lamarck 1799.

ancillarioides Reeve 1850 Conch.Icon. pl.21,f.55 = Olivancillaria
(Agaronia) nebulosa Lamarck [Minutes 183,p.8;191,p.5]
ancillaris Dufo Mrts. Beit. p.262 Mauritius
Ancillista Iredale 1936 Rec.Australian Mus.,vol.19,p.314/ Type
species, A. velesiana Iredale 1936 . Ancilla.
Ancillina Bellardi 1882 = Ancilla Lamarck 1799
Ancillinae Cossmann 1899 Subfamily of Olividae Genera Ancilla,
Baryspira,Eburna etc.
ancillops Heilprin 1890 Proc.Acad.Sci.Phil.,p.406,pl.xi,f.4
Ancillaria Eocene,Texas
Ancillopsis Conrad 1865 Am.Jour.Conch.,i,22 Not in the Olividae
[Minutes 193,p.11]
Ancillus Montfort 1810 Conch.System,vol.11,p.383. Type by original
desig. Ancilla buccinoides. = Ancilla Lamarck 1799
[Minutes 194,p.4]
andamensis Bridgman 1909 Proc.Mal.Soc. vol, VIII,p.297
= Oliva carneola (Gmelin). [Minutes 186,p.4;191,p.6]
andegavensis Duclos 1835 Monog.pl.18,figs.15,16 Fossil.
angelena T.S. Oldroyd 1918 Nautilus, vol.34,p.34. Pleistocene,
San Pedro,Calif. = Olivella biplicata (Sowerby)
[Minutes 187,p.18]
angularis Martens Conch. Misc. II, p.166, pl.15, figs.21,22
angulata Lamarck 1811 Ann.Du. Mus. xvi,p.310 = Oliva incrassata
(Solander 1786). [Minutes 184,p.17,18].
anguloseinflata Sacco 1890 Cat.Pal.Bac.terz.
angusta Bellardi 1900 Rovereto I II. Moll.Foss.tengr.
angustata Marrat 1868 Ann.Mag. Nat.Hist.,II, p.167;Thes.Conch.
p.16,pl.XIII,f.182 = Oliva oliva (Linnaeus 1758).
[Minutes 192,p.6]
angustata Smith 1906 Ann.Natal Mus.,i,p.28 as Marginella
= Ancilla errorum Tomlin 1921 [Min.191,p.19].
angustata Sowerby 1859 Thes.Conch.,65,t.1,f/13. Recent,China
Seas. Ancilla [Minutes 183,p.10].
angustata Sowerby 1903 (non. Sowerby 1859) Mar.Invest. S. Afr.
ii,p.229 = Ancilla errorum Tomlin 1921 [Min.191,p.19].
angustata Tate 1887 Trans.Roy.Soc. So.Australia
angustata Tate 1889 = Oliva australis Duclos Fossil
aniomina Duclos 1835 Monog. pl.8,f.I,2 [Minutes 191,p.6]
annotata Marrat 1871 Thes.Conch.sp.130,p.25,figs.313,314,315.
Recent-Sierra Leone. = Olivancillaria lutaria (Röding 1798)
[Minutes 183,p.4;191,p.3].
annulata Gmelin 1790 Syst.Nat. ed. 13,p.3441 Oliva
[Minutes 182,p.9;185,p.3,33;191,p.6].
Anolacia Gray 1857 Guide Moll.Brit.Mus.,26: Type by monotypy,
Ancilla mauritiana Sowerby [Min.193.p.11].
anomala v.Schloth Fuchs. I CS 48, & S.,f.89 Ancillaria
antisana Olsson 1931 Bull.Am.Paleo. Ithaca, Vol.17,62,p.116,pl.20,
f.13,June 1931. Oligocene,Peru.Olivancillaria (Agaronia).
apennica Bell.1882 Moll.Foss. del Piemonte III
apenninica Bellardi 1882 MTPL III,p.219
aperta Sowerby 1825 Tankerville Cat. App.p.32. Ill. in color in
Sowerby, Species Conch.,1830,Mon.Ancillaria,figs.3,4/
= Ancilla mauritiana Sowerby 1830.
aperta Vasseur In Cossmann,Pissarro,1910-11 Ancilla fossil,Paris.
apicalis Dall MS Numerous sets from deep water stations off
Oahu,Hawaii. Has not been described.[Min.193,p.7].Olivella.
apicalis Is. Taki 1955 Ancilla. Rec.Japan.[Min.183,p.10]
aquaensis Olsson 1922 Bull.Am.Paleo.Ithaca, vol.39,p.94.
Ancillaria.

aquatilis Reeve 1850 Conch.Icon.,pl.18,f.30 = Olivancillaria auricularia (Lamarck)

arabica Schlaeter 1838 Kurzg.Syst.Verz.Conch.,p.23 Oliva.

arachnoidea (Röding 1798) Mus.Bolt.p.36,sp.450 = Oliva spicata (Röding 1798).

araneosa Lamarck 1811 Ann.du Mus. xvi,p.314 = Oliva spicata(Röding)

arctata Marrat 1871 Thes.Conch.sp.99,p.20,figs.229,230 = Oliva mustellina Lamarck [Minutes 192,p.6] China Seas.

arenaria Cossmann Mal.Soc.L.vol.24,p.14 Sparella/ Cuisian-Paris

asphaltodes Beets 1942 Leidsche Geol. Meded. p.286

atalina Duclos 1835 Monog.t.10,f.9,10 = Oliva episcopalis Lamarck. [Minutes 191, p.7].

athenia Duclos 1835 Monog.t,26,f/17,18 Oliva [Min.182,14;185,4; 191,5].

athenia Duclos 1835 Monog. = Oliva tigrina Lamarck.

atile Conrad 1832 Foss.Shells Tert. N.Am.,(2) p.24 Ancillaria

atrebatum Wrigley 1940 Proc.Mal.Soc.Lon.,vol.24,1,p.14,f.21 Ancilla Eocene-Aldershot,England

attenuata Reeve 1850 Conch.Icon.,pl.29,figs.90,a,b. = Olivella semistriata (Gray 1839). [Minutes 188,pp.4-6].

aturensis Brocchi 1814 Br.Conch.Foss.Sub.

aurantia Johnson 1915 Nautilus, vol.28,p.103 = Olivancillaria gibbosa (Born 1780). Color form only.

aurantiaca Schumacher 1817 Nouv.Syst.,p.244 Essai Vers Test. = Oliva miniacea (Röding 1798).

aurata Röding 1798 Mus.Bolt.p.33,sp.402 Porphyria =Oliva oliva(L.)

aurata Link 1807 Rostock, p.97

aurea Martini 1773 (Mica) Conch.Cab.II,p.179,pl.49,f.534 = Oliva ispidula (Linnaeus 1758) var. flaveola Duclos

aureocincta Carpenter 1863 Carp. Rept. p.548,625;Mazatlan Cat. no.598. = Olivella petbolita Duclos.[Min.188,p.18].

auricularia Duclos 1844 Chenu Ill.Conch.p.30,pl.31,f.4,5,6,7,11,12 & pl.35,f.1,2 Recent,Rio de Janeiro to Patagonia

auricularia Lamarck 1811 Ann du Mus.,xvi,p.323 Olivancillaria Recent-Coast of Brazil [Minutes 183,p.5].

auricularia d'Orbigny 1841 Amer.Merid. 421 Olivancillaria

aurora Dillwyn 1817 Cat. Shells. p.520,sp.43 Zanguelos Is. of France and Moluccas. = Oliva carneola(Gmelin 1791).

australis Duclos 1835 Monog. t.8,f.3,4 Oliva [Min.182,p.25].

australis Gray 1850 Figs.Moll.Anim. vol.IV,p.72. = Ancilla australis Sowerby 1830.

australis Sowerby 1830 Broderip & Sowerby Spec.Conch. p.7,f.440-446. Ancilla (Baryspira) australis (Sowerby 1839) [Minutes 183,p.10].

australis Tenison-Woods 1879 Trans.Roy.Soc. Victoria, vol. XIV,p.56 Recent-Clarks Island,Australia. Olivella .

avellana Duclos 1835 Monog. pl.28,f.1-3 Oliva

avellana Lamarck 1811 Ann.du Mus,xvi,p.320 Oliva [Min.191,p.7]

avellana Marrat 1871 (non Lamarck) = Oliva funebralis Lam.

aveniformis Sowerby 1815 Mineral Comch.,vol.I,p.225,pl.99, middle figs. Fossil, London Clay,Barton Cliff

azemula Duclos 1835 Monog.pl.14,f.1,2 = Oliva miniacea (Röding). [Minutes 192,p.10]

azodona Duclos 1835 err. pro. ozodina Duclos

azona Dautzenberg 1927 Journ.Conchyl. vol.71 = Oliva sanguinolenta Lamarck 1811 Recent-New Caledonia

baetica Carpenter 1864 Brit.Assoc.Adv.Sci. Rept. for 1863,p.661 n.n. = Olivella baetica Marrat in Sowerby 1871 baetica Marrat in Sow~~y~~erby 1871 Thes.Conch. p.35,pl.350,figs.409, 410. Olivella [Minutes 187,pp.5-10].

balteata Swainson 1825 Journ.Sci. vol.18,p.284 Ancilla [Minutes 183,p.12;191,p.20].

baltheata Dillwyn 1817 (Solander MS) Cat. Rec. Shells,p.515 = Oliva annulata (Gmelin).

barthelmyi Ducros 1857 Rev.Crit. p.78,fig.58,a,b = Olivancillaria lutaria (Röding 1798). [Minutes 191,p.3].

Baryspira P. Fischer 1883 Manuel de Conchyliologie, p.600. Type species, B. australia (Sowerby 1830) by subsequent designation Cossmann 1899. Subgenus of Ancilla Lamarck [Minutes 183,p.11;193,p.10].

basterotina d'Orbigny Prodr.III. no.860-Ben.Cat.Saucats,p.205,705.

basterotina Grat. Cat.Zool. Gir. p.49,no.458;Grat.Atlas,pl.42,f.28

bathami Dell 1956 Moll. of New Zealand,Dominion Mus.Bull.18 var. of Ancilla australis [Min.183,p.11]

bayeri Abbott 1951 Nautilus,vol.64,no.4,pp.111,112,pl.7,figs.2 a-b = Olivella bullula (Reeve 1850) [Min.189,pp.15-16].

beachportensis Verco 1909 Proc.Roy.Soc. So.Australia,33,p.339 Ancilla -Recent,So.Australia [Min.183,p.12].

Belloliva Peile 1922 Proc. Mal.Soc.Lon., vol.15,p.18. Type by original designation,Olivella brazieri Angas. As genus of Olividae/ [Minutes 184,p.19;189,p.20;193,p.2].

benthicola Dell 1956 Arch,Moll. of New Zealand,p.124,figs.174,175 Ancilla Baryspira [Minutes 183,p.18].

bewleyi Marrat 1870 Thes.Conch.sp.25,p.7,f.44. = Oliva reticularis Lamarck 1811. [Min.192,p.8].

bicincta Lamarck 1822 Hist.Nat.Desh.Ed.x,619 = Oliva bulbosa (Röding 1798).

bicingulata Lamarck 1811 Ann.du Mus. xvi(94). = Oliva bulbosa (Röding).

bicolor Gray 1847 = Ancilla australis (Sowerby 1830).

bifasciata Küster-Weinkauff 1878 Weinkauff Monog. 38. Figured in Weinkauff,p.38,pl.v,f.11;pl.x,figs.8,9. = Oliva reticularis Lamarck. [Minutes 192,p.8].

bipartita Turton 1932 Mar.Sh.Port Alfred,p.31 var. bipartita pl.6,no.233 as var. of Ancilla reevei Smith 1904 [Minutes 191, p.16].

biplicata Potiez & Michaud 1838 Gal.Moll.Douai,I,p.466 Oliva

biplicata Sowerby 1825 Cat. Shells Tankerville,App.,p.XXXIII Olivella [Minutes 187,p.18].

biplicata Swainson 1840 Treat.Mal. p.82,133 & 322.

birmanica Vredenburg Rec. Geol. Surv.India,54,p.247 Olivancillaria Tertiary, India

birmanica Vredenburg 1922 Rec. Geol. Surv India,51,p.286 Ancilla (Sparella) Tertiary, Burma

bitleri Olsson 1956 Proc. ANSP.b.107,p.179 Olivella [Min.188,p.22].

bizonalis Dautzenberg 1927 Journ.Conchyl.vol.71,p.8 = Oliva carneola (Gmelin 1791). var.

blakeleyensis Durham 1944 Cal.Pub.Geol.,vol.27,5,p.179 Ancilla

blanda Marrat 1867 Ann.Mag.Nat.Hist.,vol.20(3rd Ser.),p.214; Thes.Conch.t.15,f.236,237,1871 = Oliva ispidula (Linnaeus) [Minutes 192,p.8].

blanesi Ford 1898 Nautilus vol.12,p.66 Olivella [Min.189,pp.18-19

blastoides Gardner 1947 Tert.Moll.No.Am. pl.16,f.14 Geol.Soc.Am. Lower Oligocene,Northern Mexico

bocasensis Olsson 1922 Bull.Am.Paleo.vol.9,no.39,p.289,pl.7 Miocene, Panama

boetica(Carpenter) Dall = Olivella baetica(Marrat)

boettgeri Martin 1940 Leiden Samml. Geol.Reichmus,vol.ii,p.129
Ancilla- Eocene, Java
bollingi Clench 1934 Nautilus,vol.47,p.142,pl.7,figs.3,4
= Oliva reticularis Lamarck.
bombylis Conrad 1833 Foss. Shells.Tert.No.Am.,(3),p.32,pl.18,
fig.5,p.116,f.4 Oliva Tertiary,Claiborne,Ala.
bombylis Duclos 1835 Monog.I,18 Oliva
booleyi Melvill & Sykes 1896 Proc.Mal.Soc.Lon.,vol.2,p.166,pl.13,
fig.13. Ancilla . [Minutes 183,p.12].
boussaci Cossmann 1913 Journ.Conch.Paris,vol.61,p.60.Olivella
Miocene-Martinique.
branderi Duclos 1835 Monog. pl.18,f.11,12 Oliva fossil
branderi Sowerby 1821 Mineral Conch.,vol.III,p.159 Oliva
branneri Maury 1924 Fosseis Terc.Do. Brasil,p.183,pl.9,f.21;
pl.10,f.1,15 Ancilla
brasiliana Blainville 1825 Man. Malac. p.624
brasiliana Lamarck 1811 Ann. du Mus. xvi,p.322 = Olivancillaria
urceus (Röding 1798). [Minutes 183,p.2;191,p.3].
brasiliensis Chemn. Chemn.Conch.Cab.,x,p.130,t.147,figs.1367,1368.
= Olivancillaria urceus (Röding 1798).[Min.183,2;191,3].
brasiliensis d'Orbigny 1841 Amer.Merid.p.420
brasiliensis Reeve (ex.Chemn.) 1850 Conch.Icon.,vi,no.13
brasiliensis Schümacher 1817 Essai.Vers.Test. p.244
brassica Maury 1925 B ull.Am.Paleo.Ithaca,vol.10,p.197,pl.44,
figs.1,8,9 Ancilla Miocene,Trinidad
brazieri Angas 1877 Pro.Zool.Soc.Lon.,p.172,t.26,f.6[Min.193,2]
brettinghami Bridgman 1909 Mal.Soc.Lon.vol.8,p.203,text & fig.
= Oliva caldania Duclos 1835
brevicrassa Sacco 1890 Cat.Pal.B ac.terz. Ancilla
brevicula Marwick 1931 Pal.Bull. New Zealand,vol.13,p.130 Ancilla
breviobsoleta Sacco 1890 Cat.Pal.Bac. terz. Ancillaria
brevispira Gabb 1873 Trans. Am. Phil. Soc.
brevispira Kautsky 1925 Avn. Geol. Landesanst,Berlin,vol.97,p.184
n. var. Oliva (Neocylindrus) dufresnei
brocchii Brohn. 1832 Ersch. & Gruber, Allg. Emcy.(3) III,p.68
broderipi Ducros de St. Germain 1857 Rev. Crit.p.62,t.2,f.39,a,b
= Oliva ispidula (Linnaeus 1758) [Min.191,p.7].
brogii Olsson 1956 Proc. ANSP,p.179 Olivella [Min.188,p.22].
brongniartii Bronn. 1831 Frgeb.Nat.Reisen.,vol.II,p.522 Oliva
brooksvillensis Mansfield 1937 Geol.Bull.Conserv.Fla.,vol.15,p.96
pl.4, figs. 1,2,4 Oligocene,Florida
brunnea Marrat 1870 Thes.Conch.t.4,f.54,55;t.6,f.75 = Oliva
spicata (Röding 1798) [Minutes 192,p.5].
brunnea Schumacher 1817 Nouv.Syst.,p.244 = Ancilla cinnamonea Lam.
brunnea Williamson 1892 Proc. USNM, p. 212 = Olivella biplicata .
buccinoides Lamarck 1811 Ann. du Mus. xvi,p.305 Ancillaria
buccinoides Lamarck 1803 Ann. Mus. I(6), p.475
bulbiformis Duclos 1835 Monogr. t,27,f.10-13 Oliva [Min.182,p.20]
Buccinorbis Conrad 1865 = Pseudoliva Swainson 1840 (fide Thiele)
buchanani Philippi 1887 Les Fossiles Tert..Chile,p.68,pl.8,f.12
Oliva
bulbosa Marrat 1871 Thes.Conch.,p.17,figs.176-184-192
bulboda Martini n.n. = Oliva bulbosa (Röding 1798).
bulbosa Röding 1798 Mus. Bolt. sp.459 Oliva [Min.182,6;185,3;191,7]
bulbosum Bartsch 1915 Bull. USNM 91,p.62 Melapium -err.pro bulbus
bulbus Wood 1856 Wood Index.Test. ed.Hanley,p.212,pl.3,fig.8
Buccinum bulbus = Melapium lineatum (Lam.1822)[Min.192,2]

bullata Fischer von Waldheim 1807 Mus.Demidoff-Ancilla bullata Marrat 1871 Thes.Conch.t.24,f.448 = Oliva fulgorator (Röding). [Minutes 192,p.7].

bullinoides Reeve 1864 Conch.Icon.,t.10,f.37,a,b. Ancilla [Minutes 183,p.12;191,p.18].

bulloides Thiele 1925 D. Tiefsee Exped. xvii,p.191,pl.33(21),f.18 = Ancilla hasta con Martens 1902 [Min.191,p.19]

bülcui Sowerby 1887 Jour.Linn.Soc. vol.XX,p.395 Oliva[Min.191,6]

bullula Reeve 1850 Conch.Icon. vol.6,pl.30,f.96,a,b Olivella [Minutes 189,pp.15-16].

burroensis Nelson Univ. Calif. Pub. Geol., vol.15,p.433 Ancilla Eocene,California

butonensis Beets 1942 Deidsche.Geol. Mededeel. p.289 Ancilla

caerulea Perry 1810 Arcana, p.Aa As Ancilla- not in the Olividae A species of Nassarius

caerulea Reeve 1850 Conch.Icon. v.VI Olivella Rec. Columbia ?

caerulea Röding 1798 Mus. Bolt. (in part) = Oliva episcopalis Lam.

caerulea Wood 1828 Index.Test. Suppl. pl.4,f.36 = Olivella volutella (Lamarck 1811).

caeruleus (Röding) H. & A. Adams Gen.Rec.Moll. I,p.144,Dactylus (Ispidula) = Oliva episcopalis(Lamarck 1810).

caesia Röding 1798 Mus.Bolt. sp.446 Porphyria

caffra Forskal. Sowerby,Thes.Conch. = Ancilla cinnamonea Lamarck.

calcis Maury 1924 Mon.Fosseis Terc. Do Brasil,pl.9,f.3 Olivella

caldania Duclos 1835 Monog. t.6,f.3,4 = Oliva australis Duclos

Callianax H. & A. Adams 1853 Type by subsequent designation, Cossmann,1899, Oliva biplicata Sowerby. Subgenus of Olivella [Minutes 194,p.6].

callifera Thiele 1925 Deutschen Tiefsee Exped.,Taf. XXL,f.15,seite 156 = Ancilla reevei Smith 1904.

callosa Anton 1839 Verzeichniss, 102 Oliva

callosa Li 1930 Bull.Geol.Soc. China; vol.9,p.271,pl.vii,f.61 = Oliva spicata (Röding) var. polpasta (fide Keen 1958)

calosoma Marrat 1871 (not Duclos) Thes.Conch.f.214,215 = Oliva lecoquiana Ducros [Minutes 191,p.8].

calosoma Duclos 1835 Monogr.xvi,f.1,2 Oliva [Min.191,p.8]

calliospirata Carpenter MS Ref. Moll.Types of P.P. Carpenter in Coll.Redpath Mus. by Katherine V.W. Palmer. Name is n.n. never have been published but = Oliva cryptospira Ford [Minutes 190,pp.2-3]

cana Marrat 1871 Thes.Conch. p.15,t.11,f.152 = Oliva mustellina Lamarck 1810 . [Minutes 192,p.6]

canaliculata Gabb 1873 Trans.Am.Phil.Soc. vol.15,p.215 Miocene of Santo Domingo.

canaliculata Lea 1843 Proc. Am.Phil.Soc. vol.III,p.165 n.n. Oliva

canaliculata Lea 1846 Trans.Am.Phil.Soc. vol.IX(3),p.274 Oliva

canalis von Koenen 1887 Abh.Geol.Spec.Preus.u.Thuring,vol.X Ancillaria

canalis von Koenen 1889 Das Norddeutsche Unter-Oligococan.Berlin.

canalifera Duclos 1835 Monogr.t,4,f.9,10 fossil

canalifera Lamarck 1801 Ann. du Mus.I,475 fossil

canalifera Lamarck 1803 Ann du Mus. Vol. I (6) Ancilla

canalifera Lamarck 1811 Ann.du Mus. vol. xvi,p.306 Ancillaria

candicans Melvill 1904 Proc. Mal. Soc. Lon. ,p.65 = Olivancillaria gibbosa (Born 1778)

candida Lamarck 1811 Anim.sans Vert VII,p.414. Figured,Sowerby 1830,Species Conch.Monog.Ancillaria p.3,figs.5-7. Hab. Insularum Indiae-Ceylon,Mauritius. = Ancilla ampla (Gmelin) [Minutes 191,p.21].

candida Lamarck 1810 Enc.Meth.pl.360,f.4 = Oliva ispidula(Linnaeus)

candida Martens Conch.Misc. vol.II,p.166, pl.15,figs.16,17

candidula Dautzenberg 1927 Journ.Conchyl.vol.71 = Oliva carneola (Gmelin 1791) var.

canilifera Lamarck 1803 Ann.Mus.I(5),p.391,March,1802 Oliva

capeduncula Beets 1942 Leidsche Geol.Meded.,vol.13,p.348 Ancilla

capensis Sowerby 1870 Thes.Conch.p.41,t.25,f.469 Olivella [Minutes 193,p.7]

caperata Meuschen 1787 Mus.Gever.246 Rejected work. n.n.

caribaeensis Dall & Simpson 1901 Moll. Porto Rico,p.392,pl.56,f.9 Oliva. [Minutes 184,p.13;191,p.14].

carita Marrat = Olivancillaria lutaria (Röding 1798).

Carmione Gray Proc.Zool.Soc.Lon., vol.26,p.47. Type species Oliva inflata Lamarck = Oliva Bruguiere [Min.194,p.6].

carneola Fisher von Waldheim 1807 Mus. Demidoff,pp.131-132 Cites Gmelin,3443,n.24 = Oliva carneola (Gmelin 1791)

carneola Gmelin 1791 Oliva [Minutes 182,p.13;185,p.4].

carneola Lamarck 1811 Ann. Mus. vol. xvi,p.321 Oliva

carnesla Grasset 1884 Index.Test. vol.XIV,p.36 Honolulu

carnicolor Dautzenberg 1927 Journ.Conchyl,v.71 = Oliva annulata (Gmelin 1790) var.

carolinae Gardner 1948 Prof. Pap. USGS, no.199B, p.259, pl.38, figs.22,23. Miocene, North Carolina Olivella

carolinensis Conrad 1863 Proc.Acad.Nat.Sci.Phil,xiv,p.563 = Oliva sayana Ravenel 1834 [Minutes 194,p.14].

caroliniana Duclos 1835 Monogr.t.19,f.5,8 = Oliva mustellina Lam. [Minutes 192,p.12].

caroniana Mansfield 1925 Proc. U.S.Nat.Mus. vol.66,p.33 Miocene,Trinidad

careniana Maury Bull.Am.Paleo. vol.10,p.197,p.350 ,pl.44,f.4,10,12 Ancilla

carupana Olsson Olivella Carupana,Venezuela

cassilabra Bory de St. Vincent,1824 Ency.Method.(Vers.) p.165 Oliva

castanea Sowerby 1830 Spec.Conch. 20-23 Recent, Red Sea = Ancilla cinnamonea Lamarck. [Minutes 183,p.12].

castanea Sowerby Thes.Conch..p.60,sp.14 Ancillaria

castanea Dautzenberg 1910 Faune Malacologique de l'Afrique Occidentale,Bordeaux. = Oliva flammulata Lamarck 1810,var.

castanea Johnson 1911 Nautilus, vol.24 = Oliva peruviana Lam.

caumontiensis Lamarck Fossil, Eocene. Paris.

cauta Marrat 1871 Thes.Conch.p.25,t,20,f.327,328 = Olivancillaria lutaria (Röding 1798) [Minutes 191,p.3].

ceppiensis Cossmann 1899 Ens. de Paleoconch.comp.III

ceramansis Schepman 1911 Prosobranchia of the Siboba Exped.,Leiden = Oliva carneola (Gmelin) [Minutes 186,p.5].

cercadia Maury 1925 Bull. Am.Paleo. vol. 10,p.195 Oliva Miocene, Trinidad

chili Rothpletz & Simonelli 1891 Z. Geol. Ges. Vol. XIII,p.720 Olivella -Tertiary

Chilotycma H. & A. Adams 1853 Gen. Rec. Moll. i,149 = Monoptygma Lea = Ancilla Lamarck. [Minutes 194,p.4].

chipolana Dall 1900 Wagner Free Inst. Vol.3,pt.5,pl.41,f.3 Ancillaria Chipola,Florida

chiriquiensis Olsson 1956 Proc. ANSP,vol.107,p.173,pl.11,fig.4 var. of Olivella nivea (Gmelin) [Minutes 189,p.8].

chrysoides Dautzenberg 1927 Journ.Conchyl.,vol.71. = Oliva tremulina Lamarck var.

cimbrica Kautsky 1925 Abh. geol. Landesanst,Berlin,pp.134-135 Olivella Miocene, Germany

cingulata Sowerby Cat. Mar. Gastrop.,p.13 var.Oliva gibbosa (Born)
cincta Dautzenberg 1927 Journ.Conchyl.vol.71 = Oliva oliva (Linnaeus
cincta Marshall 1918 Trans. & Proc.N.Z. Inst. vol.50,p.267,pl.20, fig.2,2a. Ancilla Tertiary, New Zealand
cincta Reeve 1850 Conch. Icon.,pl.20, fig.47 = Olivancillaria (Agaronia) hiatula (Gmelin).
cingulata Chemn. x figs.1369,1370 = Olivancillaria gibbosa (Born).
cingulata O.P. Olson 1956 Paleont.Bull. N.Z.,24,p.18,pl.4,f.5,6 Baryspira (Spinaspira)
cingulata Röding 1798 Mus.Bolt. sp.415 Porphyria
cingulata Sowerby 1830 Spec.Conch. f.6 Ancilla[Min.183,13;185,4; 191,21].
cinnamonea Fisher von Waldheim 1807 Mus.Demidoff,p.163 = Ancilla cinnamonea Lamarck 1801
cinnamonea Lamarck 1801 Syst.Anim.,p.73 Ancilla[Min.183,13;185,2; 191,21].
cinnamonea Lamarck 1811 Ann. du Mus.,xvi,p.304 Ancilla
cinnamonea Menke 1830 Menke Synopsis,p.76 = Oliva oliva (Linnaeus).
cinnamonea Roissy Anaulax
cinnamonea Sowerby 1892 (non Lamarck 1801) Mar. Sh.So.Afr.,p.16 = Ancilla fasciata Reeve 1864 [Minutes 191,p.19]
circinata Marrat 1871 Thes.Conch.,t.17,f.277 = Oliva sayana Rav.
citrina Johnson 1911 Nautilus,vol,24,p.123 = Oliva sayana Rav.
claneophila Duclos 1835 Monogr.t.29,f.8,9 = Olivancillaria auricularia Lamarck
Claneophila Gray 1858 Zool.Proc.39 PZS 26,p.47 Type by tautonomy O. claneophila Duclos. = Olivancillaria d'Orbigny [Minutes 194,p.6].
clara Marrat 1871 Thes.Conch.p.18,t.14,f.199,200 Oliva = Oliva leucostoma Duclos 1835 [Minutes 191,p.14].
clarki Woodring 1928 Mioc.Moll.Jamaica,Carnegie Inst.Wash.,p.231, pl.14, f.1. Olivella Miocene, Jamaica
clavula Lamarck 1811 Ann. du Mus.xvi(94),p.328 Oliva fossil.
claytonensis Dickerson 1915 Univ. Calif. Pub. Geol.,vol.8,p.147 Olivella Eocene, California
clewistonensis Olsson & Harbison 1953 Pliocene Moll. of So.Fla. p.187,pl.39,f.6. Olivella
coccinata Dautzenberg 1927 Jour.Conchyl,vol.71,p.8 = Oliva carneola (Gmelin) var.
cocosensis Olsson 1956 Proc. Acad.Nat.Sci.Phil.,p.180,pl.14,figs 9,9a. Olivella [Minutes 188,p.23].
coccinea Fischer von Waldheim 1807 Mus,Demidoff [Min.183,p.13].
coccinea Hedley 1914 Biol.Resulys F.I.S. "Endeavor",vol.2,p.67 [Minutes 183,p.13]. Ancilla
coccinea Verco 1912 Trans.& Proc.Roy.Soc.,Adelaide,So.Australia p.206,1912. Ancilla Recent,Great Australian Bight
coënsis Mansfield 1930 Bull. Fla. State Geol.Surv.,no.3,p.52,pl. 4,fig.2. Miocene,Jackson Bluff, Fla. Olivella
cofacorys Gardner 1937 Prof.Pap.U.S.G.S.,p.383,pl.XLVI,f.10,11 Olivella Miocene, Florida
coffea Röding 1798 Mus. Bolt. sp.462 Porphyria
colleta Dall 1915 Bull. U.S. Natl. Mus.,90,p.50 Oligocene,Fla.
colpus Woodring 1928 Mioc.Moll.Jamaica,p.234,pl.14,f.4,5 Olivella (Dactylidella) Miocene,Bowden, Jamaica
columba Duclos 1835 Monog. t.[illegible],f.3,4 = Olivella esther (Duclos)
columba Marrat 1871 (not Duclos) Thes.Conch.,418 = Olivella petiolita (Duclos 1835).
columbiana Clark & Durham 1946 Mem.Geol.Soc.Am.,Wash.,vol.16,p.45 pl.24,f.7 Ancilla (Olivula) Eocene,Columbia

columellaris (Eyd) Gray 1850 Figs.Moll.Anim.,vol.IV,p.72 (Oliva
Sowerby) Olivella .
columellaris (Sowerby) d'Orbigny 1841 Am.Merid.,p.419 Olivina
columellaris Sowerby 1825 Tankerville Cat.,app.,xxxiv,p.35
[Minutes 183.pp.2-3].
columellaris Wood 1828 Suppl. Index. Test. p.45 (Voluta) Oliva
commendabile Beets 1942 Leidsche Geol.Mered.,p.348 Ancilla
compta Marrat 1871 Thes.Conch.,t.24,f.432 = Olivella anazora(Duclos
concavospira Sowerby 1914 Ann.Mag.Nat.Hist.,1914,pl.18,f.2
[Minutes 186,p.4;191,p.8].
concinna Marrat 1871 Thes.Conch. t.6,f.100,101 = Oliva tremulina
Lamarck. [Minutes 192, p.11].
conica Roualt 1850 Mem.Soc.Geol.France (2), vol.III(2),p.501
coniformis Philippi 1848 Abb. u, Deschr.,xix,1,fig.5-7 = Oliva
peruviana Lamarck
coniformis Pusch 1836 Geogn. Pesch. Polen. vol.II,p.533 Ancillaria
conoidalis Lamarck 1811 Ann. Mus. t.16,p.325 = Olivella jaspidea
(Gmelin 1791) [Minutes 189, pp. 17-18]
conoidalis (Lam.) d'Orbigny 1842 Sagra ,Cuba (Moll. II),p.105
Olivina
conoidalis (Lam.) Swainson 1840 Treat.Malac.,p.322 Olivella
conoidea Cristofori & Jan Cat.Mus.Sect.II(1) Conch.Foss.,p.15
Ancillaria
conoidea Deshayes 1830 Ency.Method.(Vers.) II(1),p.44 Ancillaria
conoidea Dollfus & Dautzenberg Baryspira
conoidea Röding 1798 Mus.Bolt. sp.430 Porphyria
consobrina Lischke 1871 Mal. Bl. vol. xviii,p.41;Figured Jap.
Meeres Conch. II, p.62, pl.5, figs.10,11 Recent,Nahasaki,
Japan . = Olivella lepta (Duclos 1835) [Min.191,p.10].
constricta Lea 1833 Contr.Geol.,p.18[illegible] Oliva Tertiary, Alabama
contortuplicata Reeve 1850 Conch. Icon.,[illegible]0, [illegible] 1 Olivancillaria
[Minutes 183, p.5].
contusa Reeve 1864 Conch. Icon.,t.9,f.31,a,b Ancilla
[Minutes 183,p.14; 191,p.18].
conus Andrzejovski 183[illegible] Bull.Soc.Imp.Nat.Moscov.,vol.iv,p.559 n.n.
cornea Röding 1798 Mus.Bolt. sp.448 Porphyria
corticata T. Martyn 1789 Univ.Conch.,III,f.111. Oliva .Rejected
cossmanni Vredenburg 1923 Rec.Geol.Surv.,India, vol.5[illegible],p.247
Olivancillaria (Agaronia) Tertiary, India
costaricensis Olsson 1922 Bull.Am.Paleo. vol.39,p.90 New var. of
Olivancillaria (Agaronia) testacea Lam, Miocene-Costa Rica

cotinados Gardner 1937 Prof. Pap. U.GS, 142F,p.253,pl.xlvi,f.6.7
Olivella
cotopaxi Sheppard Geol. SW Ecuador, p.134, fig.100b.Olivancillaria
Miocene, Ecuador
couvani Maury 1925 Bull.Am.Paleo. vol. 10, p.347, pl.44, f.6 Oliva
crassa Gmelin 1790 Linn.Syst.Ed.13,p3421 Cyp. = Pseudoliva crassa
(Gmelin 1790) [Minutes 192,p.3].
crassa Martini n.n. 2 Oliva bulbosa (Röding 1798).
crassa Sowerby Thes. Conch.,30,t.4,figs.86,90,91.Ancilla
[Minutes 183,p.14; 191,p.21].
cristobalcoloni Maury Bull.Am.Paleo., vol.5,p.231. Oliva
Tertiary, Santo Domingo
cruenta (Dillwyn) Reeve 1850 Conch.Icon., vol.vi,f.30 Oliva
cruenta(Solander) Dillwyn Dillwyn Cat. I, p.514 = Oliva annulata
(Gmelin 1790).
cruentata Lamarck = Oliva annulata (Gmelin 1790)
cruentata Rethaan-Macaré Cat.Collect.Macaré, p.50

cryptospira Ford 1891 Nautilus,vol.4,pp.135-136 Oliva
[Minutes 181,p.20;190,pp.2-3;191,p.13].
crystallina Brookes 1926 Trans. Proc. N.Z. Inst.,vol.56,p.589
pl.102,figs.2,2a Ancilla, Baryspira Recent,New Zealand
cumingii Reeve 1850 Conch.Icon.,pl.11,figs.19,a,b [Min.184,p.23].
cuneata Marrat 1871 Thes.Conch.p.22,f.383 = Olivella nivea (Gmelin)
[Minutes 189,p.8].
cuppedia O.P. Olson 1956 Paleont.Bull. N.Z., 24,p.22,pl.5,f.11,12
Baryspira (Alocospira) Oligocene
Cuspidoliva Iredale 1924 Proc.Linn,Soc. N.S.W., p.259,vol.xlix
Type by original designation,Olivella nympha Adams and Angas
[Minutes 193,p.4].
cyanea Reeve 1850 Conch.Icon.,pl.24,fig.70 (erratum om page ii
of index). = Olivella minuta (Link 1807) [Min.189,p.13].
cylindracea Borson 1820 Mem.R. Acad. Sci.Torina,vol.xxv,p.203
cylindrica Borson 1830 Cat.Coll. min.Mus.(Turin). nn Oliva
cylindrica Sowerby 1850 Quart.Jour.Geol.,vi,p.45 Oliva
cylindrica Marrat 1867 Ann.Mag.Nat.Hist., vol.20(3rd Ser.),p.214
= Oliva cryptospira Ford 1891.[Min.181,20;190,2,3;191,13].
cylindrica Sowerby 1871 Thes.Conch. p.17,t.14,f.193,194 Recent,
China Seas. = Ancilla ampla (Gmelin).
cylindrica Cossmann 1913 Jour.Conch.,vol.61,pl.5,f.2,3 Oliva
Cylindrus Breyn. 1732 = Oliva Bruguiere
Cymbancilla P. Fischer 1881 Journ.de Conch/ vol.xxix,p.33.Type,
by original designation, Ancilla volutella Deshayes (A.
mauritians Sowerby). = Ancilla Lam. [Min.194,p.6].
cypraea Dillwyn 1817 Cat. i,p.490, vix.Linne" (Bulla)
= Ancilla cinnamonea Lamarck.

Dactylidella Woodring 1928 Miocene Moll. Jamaica Carnegie Inst.
of Wash.,Publ.335,p.231. Subgenus of Olivella . Type by
original designation, O. anazora Duclos . Subgenus of
Olivella.
Dactylidia H. & A. Adams 1853 Gen.Rec.Moll., p.146. Type by sub-
-sequent Desig. Cossmann,1899. Olivella mutica (Say).
Subgenus of Olivella. [Min. 194, p.7].
dactyliola Duclos 1835 Monog. pl.27,f.5-8,excl.9 [Min.182,p.20;
185,p.3;191,p.5].
Dactylus (Klein 1753) H. & A. Adams 1853 Gen.Rec.Moll.,p.143
= Oliva Bruguiere [Minutes 194,p.7].
dama Mawe 1828 Wood,Index.Test,Suppl.,p.11,pl.4,f.37
[Minutes 183,pp.6-8;187,p.21].
dasa Gardner 1937 Prof.Pap.USGS,p.383,pl.xlvi,f.15,16 Olivella
Tertiary, Florida
davisae Durham 1950 Mem.Geol.Soc.Am., no.43,pt.2,p.103,pl.26,f.3,5
= ? Oliva spicata (Röding 1798) var. [Min.184,p.26].
dealbata Reeve 1850 Conch.Icon.,vol.6,pl.25,f.71 Olivella
[Minutes 189,pp.11-12;193,p.8].
dealbata Röding 1798 Mus.Boltenianum sp.427 Porphyria
dechampi Ancey Ancilla Ex. Paetel 1888 Aden
decipiens Bartsch 1915 Bull. U.S. Nat.Mus.,91,p.34 = Ancilla
contusa Reeve 1864 [Min.191,p.18].
decipiens Marten 1931 Wetens.Meded.Mijnb., Weltevreden,Batavia,
vol.18,p.12,f.7 Ancilla Eocene-Java
decipiens Sowerby 1897 Appen. Mar.Shells So. Africa,p.iv,42
= Ancilla contusa Reeve 1864 [Min.183,14;191,18].
degrangei Peyrot 1928 Act. Soc.Lin. Bordeaux.vol.79,supp.p.177
Oliva (Neocylindrus) Tertiary, Aquitaine
depressa Sowerby 1879 Thes.Conch.iii,63,pl.211,f.3 [Min,183,p.11]

dertoacuta Sacco 1890 Cat.pal.Bac.terz. Baryspira

dertocallosa Sacco 1890 Cat. pal. Bac. terz. Ancillaria

dertocrassissima Sacco 1890 Cat. pal.Bac. terz. Ancillaria

dertorugulosa Sacco 1890 Cat. pal. Bac.terz. Baryspira

deshayesiana Ducros de St. German 1857 Rev.Crit.p.86,t.3,figs.67,a,b Olivancillaria [Minutes 183,p.5].

deshayesii A. Adams Sowerby,Thes.Conch.,t.4,f.68,69 = Ancilla cinnamonea Lamarck [Minutes 191,p.21]

diadematophorus Maury 1910 Bull.Am.Paleo.Ithaca,vol.4(21),p.133 Olivella Oligocene, Florida

diadochus Adams & Reeve 1871 Thes.Conch.no.206 = Olivella nivea (Gmelin 1790) [Minutes 189,p.8].

diaphana Duclos 1835 Monogr. = Oliva reticularis Lamarck

diegensis T.S. Oldroyd 1921 Nautilus,vol.34,pp.117- 119. = Olivella baetica Marrat 1871

digitalis von Koenen 1887 Abhr. Geol.Spec.Preus. u. Thuring,vol.x Ancillaria

dimidiata Pilsbry & Johnson 1917 Proc.Acad.Nat.Sci.Phil.,vol.69, p.164 Oliva Oligocene, Santo Domingo

dimidiata Sowerby Geol.Obs."Beagle",vol.III,p.263 Oliva 1846

dimidiata Sowerby 1871 Thes.Conch. 62,t.3,f.55,56 Ancilla [Minutes 183,p.14].

dimidiata von Martens 1903 D. Tiefsee Exped.,vii,p.38 (dimidiata non Sowerby, part; Sta.113 = Ancilla bullioides Reeve 1864 [Minutes 191,p.18].

Dipsaccus (Klein) H. and A. Adams 1853 Gen.Rec.Moll.,p.147 = Ancilla Lamarck [Minutes 194,p.7]

djiboutina Jousseaume Bull.Soc.Philom.,vol.vi,p.104 Ancillaria Recent, Gulf of Aden

djocdjocartae Vredenburg 1854 Bib. Indian Geol. Pt. IV,1926 Oliva Miocene,Burma

dodona Olsson & Harbison 1953 Pliocene Moll.of So.Fla. p.185,1.30, fig.2

dolicha Locard 1897 Exped. Sci.du " Trailleur" et du " Talisman" Oliva Cape Verde Islands

douvillei Chavan and Fischer 1939 Jour. de Conchyl,Paris,83 Baryspira, Eocene

drangai Olsson 1956 Proc. ANSP,vol.107,p.180,pl.15,f.7 Olivella [Minutes 188,p.23].

drangai J.S. Schwengel 1951 Nautilus, p.117,pl.8,f.2-3 Oliva Recent,Tabago,West Indies

dubia Deshayes 1830 Ency.Method. vol.II,(1) p.45 Ancillaria

dubia Lea 1833 Contrib.to Geol.,p.183 Oliva Tertiary,Alabama

dubia Schepman 1911 Prosobranchia of Siboba Exped.,pt.IV,Leiden, 1911. Rec. Madura Str., N. Celebes,Kei Id. = Oliva bulbiformis Duclos 1835 [Minutes 186,p.3]

duclosi Reeve 1850 Conch.Icon.,pl.XIX,f.44 [Minutes 182,p.16; 185,p.4;186,p.7;191,p.14]

duclosiana Jay Cat.4,p.367; In Grasset,Index Test.VIV,p.36(Phila.) = Oliva duclosi Reeve 1850 [Min.191,p.14].

dufresnei Basterot 1825 Mem.Soc.H.N. Paris,II(1) 42 Oliva

dufresnei Duclos 1835 Hist Nat. Monogr.pl.18 Oliva fossil

duplicata Conrad 1843 Proc. Acad.Nat.Sci.Phil.,vol.I(31)p.309 Oliva

dyspetes Iredale 1928 Austr. Zool.,vol.V,pt.10,p.341,pl.38,f.12 Ancilla [Minutes 183,p.14].

Eburna Lamarck 1801 Subgenus of Ancilla Lamarck 1799. Type, by monotypy, Buccinum glabratum Linne' (renamed Eburna flavida by Lamarck. [Minutes 194,p.7].

eburnea Deshayes 1830 Lam.Hist.Nat.2nd ed.X,p.591 = Ancilla cinnamonea Lamarck [Minutes 183,p.14].

eburnea Lamarck 1811 Ann.Mus. vol.xvi,p.326 = Olivella nivea (Gmelin) [Minutes 189, p.8].

eburnea Swainson 1831 Zool.Illus.(2) II(13),Gen.Index,pl.58 Olivella

Eburnus Montfort 1810. Conchyliologie Syst.,p.507 Type by original designation,E.flavus Montfort = Buccinum glabratum L.= Ancilla glabrata (Linnaeus). [Minutes 194,p.7].

edelona Duclos 1844 Chenu Ill.Conch.,vol.II,p.20 Oliva

edgariana Schepman 1911 Siboba Exped.,p.257 Ancilla Recent, Malay Archipeligo.

edithae Pritchard and Gatliff 1899 Proc.R.Soc.Victoria,vol.2,p. 181,pl.20,f.8,5 Ancilla (Baryspira) [Min.183,11;181,p.]

efasciata Dautzenberg 1927. Journ.Conchyl.,vol.71 = Oliva miniacea (Röding 1798) var.

effusa Swainson 1825 Jour.Sci.,xviii,p.275;Figured in color by Sowerby,1830,Species.Conchyl.,p.4,f.8,9 = Ancilla cinnamonea Lamarck.

egira Duclos 1844 Chanu Ill.,Conch.,t.5,f.24,25 = Oliva ispidula(L.)

elatum Schubert & Wagner 1829 Conch.Cab.,xii,pp.92,94,pl.226,f. 4012,4013 (Pyrulae) Melapium [Min.192,p.2].

electa Marwick 1929 Trans.Proc. N.Z. Inst.,vol.59,p.921 Baryspira Tertiary, New Zealand

elegans Lamarck 1811 Ann. du Mus.,xvi,p.312 Oliva [Minutes 182,p.19;191,p.15;192,p.11].

elegans Lea Contr. to Geol. p.205 Tertiary,Claiborne,Alabama Is an Acteon fide Conrad

elegantula Rovereto 1900 Ill.Moll.Foss.Tongr. Olivella

elegantula Tesch. Pal.Timor,vol.5,p.42 Ancillaria ,Tertiary,Timor

eleutheria Gardner 1937 U.S.Geo.Surv.,Prof.Pap.333,pl.xlvi,f.12,13 Olivella, Chipola,Florida

elongata Cuvillier 1933 Mem.Inst.Egypt,vol.22,p.6,pl.viii Olivella Bartonian, Egypt

elongata Deshayes 1830 Ency.Method.(Vers.) II (1) p.45 Ancillaria

elongata Dolfuss and Dautzenberg Baryspira

elongata Fischer von Waldheim 1807, Museum Demidoff. = Olivancillaria gibbosa (Born 1778) [Min.191,pp.2-3]

elongata Gray 1847 App.Voy.Fly.,vol.ii,p.357,t.1,f.5 = Ancilla muscae Pilsbry 1926

elongata Marrat 1871 Thes.Conch.,t,22,f.386,387 = Olivella floralia (Duclos 1835) [Minutes 189,p.9;193,p.7]

elongatula Noszky 1940 Ann.Hist. Nat.Mus.H ung.,Min.Geol.,vol.33, p.40. n. var. Oliva inflata Oligocene

elongiuscula Sacco 1890 Cat.pal,Bac.terz. Tortoliva

emeliodina Duclos 1844 Ill.Conch.,p.30,pl.21,f.19,20 = Oliva episcopalis Lamarck 1810 var.

emicator Meuschen 1787. n.n. Rejected work = Oliva annulata (Gmelin) [Minutes 182,p.9,p.33].

emeliodina Duclos 1844 Chenu Ill.Conch.,pl.21,f.19,20 Oliva

Eoancilla L.W. Stephenson 1941 Type species, E.acutula Stephenson Univ. Texas.Bull,1941,p.361,pl.69,f.8,9. Upper Cretaceous,

eocenica Woods 1922 In Bosworth's Geol. of Peru,p.105,106 Olivancillaria Quaternaru, Peru

epacra O.P. Olson 1956 Paleont.Bull.,N.Z.,24,p.12,pl.1,f.8,11 Baryspira Pleistocene

ephamilla Watson 1882 Jour.Linn.Soc. vol.xvi Olivella Recent, 350 fathoms off Pernambuco

piscopalis Lamarck 1810 Ann.du Mus,p.313 Oliva [Min.182,11;185,3] equestris Meuschen 1787 Mus. Geserv.248 Ancilla Rejected work

erica O.P. Olson 1956 Paleo.Bull.N.Z.,24,p.13,pl.2,f.6,7 Baryspira

eridona Duclos 1844 Chenu Ill.Conch.,vol.II,p.14 Oliva

errorum Tomlin 1921 Jour.Conch.Leeds,vol.16,p.216,pl.8,f.2 Ancilla Recent ,South Africa [Minutes 191,p.19].

erythrostoma Lamarck 1811 Ann.Mus.,vol. xvi,(94),p.309 Oliva = Oliva miniacea (Röding 1798).

erythrostoma Meuschen 1787 Mus. Gevers. Rejected work Oliva = Oliva miniacea (Röding 1798) [Min.181,p.12,32].

esiodina Duclos 1844 Chenu Ill.Conch.,p.18,pl.16,f.19,20 Oliva = Oliva duclosi Reeve 1850 var.

esmilota Duclos 1835 Monogr.pl.4,figs.5,6 Oliva fossil

esther Dall & Simpson 1901 (non Duclos) Olivella = Olivella petiolita (Duclos 1835) [Min.188,pp.18-20].

esther Duclos 1835 Monogr. pl.3,f.7,8 Olivella [Min.188,20;193,7].

eutacta Dall 1903 Trans.Wagner Free Inst.,vol.3,pt.6,p.1576,pl.58, fig.3 (name only) Olivella Miocene,Florida

eutorta Dall 1915 U.S.N.Mus.,Bull.90,p.50 Oligocene,Florida

evania Duclos 1835 Monogr.,pl.20,f.3,4 = Oliva sanguinolenta Lama

excavata Cossmann 1910-13 Icon.Comp. des Coq.Foss.d'Eocene.Ancilla

exigua Broderip & Sowerby 1830, Spec.Conch.,Anc.p.6,figs.33,34,35 [Minutes 183,p.14;194,p.4].

exigua (Martini) Marrat 1871 Thes.Conch.,vol.4,p.33,pl.23(350) figs.399,400 = Olivella jaspidea (Gmelin,1791)[Min.189,17]

exilis Marrat 1868 Ann.Mag.Nat.Hist.,vol.2,(4th Ser.) p.213;Thes. Conch.,p.30,f.452. = Olivella dealbata Reeve 1850

expansa Aldrich 1886 Prelim.Rept. on Tert. Foss.Ala.& Miss.,p.28 pl.5,fig.11. Lisbon,Ala.

exquisita Angas 1871 Pro.Zoo.Soc.,p.13,pl.I,f.2 Olivella. Recent, New South Wales, Australia [Minutes 193,p.2].

exsputa Bartrum & Powell 1928 Trans.Proc.N .Z. Inst.,vol.59,p.149. Tertiary, New Zealand

faba Marrat 1867 Ann.Mah.Nat.Hist.,vol.20,(3rd series),p.214;Thes. Conch.IV,p.29,pl.xvi,figs.238,239. = Oliva athenia Duclos 1835 [Minutes 185,p.4;191,p.5].

fabagina Lamarck 1811 Hist.Nat.ed.Desh.x,629 = Oliva bulbosa (Röding 1798).

fabrei Ducros de St.Germain 1857 Rev.Crit.p.42,pl.2,f.8,a,b. = Oliva oliva (Linnaeus 1758).

fabula Marrat 1871 Thes.Conch.,p.36,pl.23,f.420,421. = Olivella lepta (Duclos 1835). [Minutes 191,p.10].

fallax Johnson 1910 Nautilus,vol.24,p.64. = Oliva tigrina Lamarck 1810. [Minutes 192,p.10].

fallotina Duclos 1835 Monogr.,pl.4,f.7,8 fossil

fargoi Olsson & Harbison 1953 Pliocene Moll. So. Fla.,p.187,pl.29, f.6,pl.39,f.4. Olivella

fasciata Perry 1811 Perry Conch.,pl.31. Not in the Olividae.

fasciata Reeve 1864 Conch.Icon.,pl.11,f.44,a,b. Ancilla [Minutes 183,p.15;191,p.19].

fasciata Röding 1798 Mus.Bolt.sp.387 Porphyria= Oliva oliva(L

fenestrata Johnson 1915 Nautilus vol.28,p.100 = Oliva oliva (L.)

fenestrata T. Martyn 1789 Univ/Conch.,III,f.112. Rejected work.

figura Marrat 1870 Thes.Conch.,t.4,f.45 = Oliva reticularis Lam.

fimbriata Reeve 1850 Conch.Icon.,pl.29,f.92,a-d. = Olivella mutica (Say 1822) [Minutes 189,pp.10-11].

fimbriata Röding 1798 Mus.Bolt.Sp.410 Oliva n.n.

firthi O.P. Olson 1956 Pel.Bull.N.Z.,24,p.26,pl.6,f.15.Baryspira

flammeola Link 1807 Rostock ,p.98

flammulata Lamarck 1811 Ann. Mus. xvi,314,17 [Min.182,24;192,7]

flava Marrat 1871 Thes.Conch.,t,11,f.156,157 = Oliva elegans Lamarck

flaveola Duclos 1835 Monogr.t,6,f.17-20.= Oliva ispidula (Linnaeus) [Min.191,p.15].

flavescens Melvill 1904 Proc.Mal.Soc.Lon.,vol.6,p.65 = Olivancillaria gibbosa (Born) var.

flavida Schumacher 1817 Nouv.Syst.p.206 = Ancilla glabrata (Linne').

flavus Meuschen Mus. Gevers. Rejected work = Oliva tremulina Lam.

fletcherae Berry 1958 Leaflets in Malacology,vol.1,no.15 [Minutes 188,pp.6-7].

flexuosa Gardner 1931 Bull.Am.Ass.Petrol.Geologists,pp.149-160 Ancillaria (Ancilla) Midway fauna, Texas.

floralia Duclos 1853 Chenu Ill.,vol.4,p.6 [Min.189,p.9;193,p.7].

floridana Mansfield 1930 Bull. Fla. State Geol.Surv.,no.3,p.53, pl,4,f.3. Miocene, Jackson Bluff, Fla.

fordi Johnson 1919 Nautilus,vol.24,p.51 = Oliva cryptospira Ford.

forelandensis Abrard 1946 Ann.Paleo.Paris,vol.32,p.80,pl.v,f.21,22 Oliva . Upper Miocene.

formosa Marrat 1871 Thes.Conch.,t,3,f.29,30.= Oliva reticularis Lam

fornicata Meuschen 1787 Mus.Gever.248 Rejected work.

fortunei Marrat 1871 Thes.Conch.,f.422,423. = Olivella lepta (Duclos 1835). [Minutes 191,p.10].

fragilis Cuvillier 1930 Mem.Ihdt.Egypt,vol.16,p.257 Ancilla.

fucana T.S. Oldroyd 1921 Nautilus,vol.34,p.119. = Olivella biplicata (Sowerby 1825).

fulgens Perry 1811 Conch.Ap.pl.31. = Ancilla glabrata (Linnaeus).

fulgida Reeve 1850 Conch.Icon.,pl.36,fig.78,a,b Olivella [Minutes 193,p.8].

fulgurans Melvill 1904 Proc. Mal. Soc. Lon.,vol.6,p 65 = Olivancillaria gibbosa (Born 1778).

fulgurata Adams & Reeve 1848 Voy. of Sammarang,p.31,pl.10 = Olivella lepta (Duclos 1835) [Min.191,p.10].

fulgurata Martens 1869 Mal. Blatt.221 = Oliva peruviana Lam.

fulgurator Röding 1798 Mus. Bolt. Oliva [Min.183,p.24;192,p.7].

fulgurina Bory de St.Vincent 1824 Ency.Method(Vers)p.165 Oliva

Fulmentum P. Fischer 1884 As genus in subfamily Pseudolivinae (Thiele,p.332). F. sepimentum (Rang) im Golf von Guinea Prinzen-Insel [Minutes 192,p.4].

fulminans Lamarck 1810 Hist.Nat.vii,p.421 = Oliva oliva (Linnaeus)

fulminea Risso 1826 H.N. Europe,vol.IV,p.231 Ancillaria

fulva Marrat 1871 Thes.Conch.,p.42,pl.25,f.471 = Oliva oliva (L.).

fulva Swainson 1825 Jour.Sci.,xviii,p.283;Quart.Jour.Sci. Ancilla [Minutes 183,p.15;191,p.21].

fumosa Marrat 1871 Thes.Conch.,sp.58,p.13,f.119 = Oliva tremulina Lamarck. [Minutes 192,p.11].

funebralis Lamarck 1811 Hist.Nat.vii,p.437 Oliva [Min.182,23;191,14

funebralis (Lamarck) Tryon,Man.Conch.,V,p.77,pl.22,figs.3-5 (picta) = Oliva dactyliola Duclos 1835.

fura Reeve ,Gray 1858 Pro.Zool/Soc.,55,1858 = Olivella pura (Reeve

fusca Fischer von Waldheim 1807 Mus.Demidoff.= Oliva oliva(Linne')

fusca Link 1807 Besch.der Nat.-Sammlung der Univ. zu Rostock = Oliva oliva (Linnaeus 1758).

fusca Perry 1811 Conch.,pl.41 n.n. Unidentifyable.

fuscata Marrat 1871 Thes.Conch.,pl.2,figs.20-22. = Oliva spicata (Röding 1798). [Min.184,p.23;192,p.5].

fuscodentata Dall 1889, Blake Rept.,Bull. MCZ,vol.18,no.29,pt.2, p.134. Olivella [Minutes 189,p.7].

fusifera Dufo 1840, Ann.Sci.Nat.(2),vol.xix,p.180. Oliva

fusiformis Lamarck 1811 Ann. du Mus.,xvi,p.318 = Oliva fulgorator (Röding 1798).[Min.192,p.7].

fusiformis Petterd 1886 Pro.Roy.Soc. Tasmania,p.342 Ancilla
[Min. 183,p.15].

fusiformis Sowerby 1850 In F. Dixon,Geol.Sussex,p.189 Ancillaria

futheyana Anderson 1905 Pro.CAS, v.2, p.201 Oliva

gabrielensis Clark & Durham 1946 Mem.Geol.Soc.Am.,Wash.,vol.16,
p.45,pl.24,figs.2,3. Olivella (Callianax) Eocene.

gaisiani Duclos 1835 Monogr. pl.18,figs.11,12 Oliva Fossil,Chile

galeola Duclos 1835 Monogr. pl.28,figs.4,5,6 = Oliva funebralis Lam.

galactites Duclos 1835 Monogr. Fossil.

Galeola Gray 1858 Zool.Proc. 39;P.Z.S. vol.26,p.48. Type by
subsequent designation, Voluta carneola Gmelin = Oliva
carneola (Gmelin). = Oliva Bruguiere [Min.194,p.7].

galeola Duclos 1835 Monogr. = Oliva zeylanica Lam. fide Paetel

Galeolella Cossmann 1899 Essai de Paleo.Comparee. Type,Oliva
carneola (Gmelin) by original designation.[Min.194,p.8].

Galeolopia Roveretto 1899 Atti. della Soc.Linguestia, Genoa,vol.X,
no.2,p.103. Synonym, Galeola Gray 1858,Fischer 1887,non
Klein 1754 (Echinodermata). = Oliva carneola (Gmelin).
[Minutes 194,p.8].

galvestonensis Harris 1895 Bull.Am.Paleo.vol.1,no.3,p.100,pl.3,
fig.13. Olivella . Miocene, Galveston Well.

Gastridia Gray 1847 = Pseudoliva Swainson 1840 (fide Thiele).

Gastridium Sowerby 1842 (non Moderer 1793) = Pseudoliva Swainson.

gatunensis Toula 1909 Wein Jahrb. k.k.Geol.Rchs.Anst.,vol.58,
p.703,pl.25,fig.12. Upper Tertiary- Panama.

gaylordi Ford 1894 Nautilus.vol.8,p.104,pl.II,fig.14 = Olivella
gracilis (Brod. & Sby. 1829). [Min.188,pp.8,9].

gaysiana Duclos 1835 Monogr. pl.18 Oliva

gaza Iredale 1924 Proc. Linn.Soc., IV, NSW, vol.19,p.1183 n. subsp.
Baryspira fusiformis [Minutes 183,p.15].

Gemaspira O.P. Olson 1956 New Zealand Paleo. Bull. 24. Subgenus
of Baryspira . Type: Ancilla (Baryspira) robusta Marwick
1924. New Zealand.

Gemmoliva Iredale 1924 . Type, G. triticea Duclos 1835. Subgenus
of Belloliva Peile 1922. [Minutes 193,p.3].

gerthi Altena & Beets 1944-45. Verh.geol.Minjb.,Genoot.Ned.Kol.
vol.14,figs.19,21. Oliva.

gerthi Oostingh Wetens.Meded.Minjb.,vol.26,p.106,fig.10.
Ancilla (Alocospira) . Pliocene, Java

gibbosa Born 1778. Text.Mus.Caes.p.215. Olivancillaria [Min.183,p.6]

gibbosa Gray 1858 P.Z.S.,vol.26,p.48,sp.5 Claneophila.

gibbosa Lamarck = Oliva bulbosa (Röding 1798).

gibbosa Marrat 1871 Thes.Conch.,pl.19,figs.302,304,305,309,210
= Olivancillaria nebulosa (Lamarck).

gigantea Lea Contr. to Geol.,p.180 Anolax Tertiary,Alabama

gigartoides O.P. Olson 1956 Paleont.Bull. New Zealand,24,p.27,
pl.6,figs.13,14. Baryspira(Gracilispira). Oligocene.

giraudi Cossmann 1913 Jour.Conch..Paris, vol.61,p.56 Oliva
Miocene, Martinique

glabrata Linnaeus 1758 Syst.Nat.ed.10,p.739. Ancilla [Min.183,15].

glabrata (Linnaeus) Swainson 1825. QuartJr.Sci., Roy.Inst. Gr.
Brit., vol.xviii(36), p.285. Ancilla.

gladeensis Mansfield 1931 Proc. U.S. Nat. Mus., 79,p.415 n. subsp.
Olivella jaspidea . Tertiary, Florida.

gladiolaria O.P. Olson,1956 Paleont.Bull. New Zealand, 24, p.13,
pl.2,figs.4,5. Baryspira. Pliocene-Pleistocene.

glandiformis Chavan & Fischer 1939. Jour. de Conchyl.,vol.83
Baryspira.

glandiformis Guppy 1873 (non. Lamarck). Bull.Am.Paleo. vol.8,p.216 (.reprint of Trinidad) Proc.Sci.Assn. Trinidad,vol.2,no.2, p.84,1921. Miocene, Jamaica.

glandiformis Lamarck 1811 Ann. Mus. vol.xvi,p.305/ Ancillaria.

glandiformis Lamarck 1811 Anim. s.vert.,vii,p.427 Oliva ? Impossible to identify.

glandiformis Marrat 1871 Thes.Conch., pl.12,fig.175 (non 173,174) = Oliva lecoquiana Duclos de St.Germain 1857.

glandiformis Marrat 1871 (non Lamarck). Thes.Comch.,pl.12,figs. 173,174. = Oliva tigrina Lamarck.

glandina Deshayes 1835 Descr.Coq.Foss. Paris,vol.II,p.371 Ancillaria.

glandinaria Conrad Carpenter Reprint p.193 = Olivella biplicata (Sowerby).

glans Smith 1908. Ann.N at.Hist.,vol.IV,p.246-;Figured ,Annandale and Lloyd,Illust..Zool. of ..Survey Ship " Investigator", Calcutta, pt.5,pl.15/. Recent, Indian Ocean.

glauconitica Venzo. Mem. Inst.Geol. Univ. Padoza,vol.13,p.31,pl.ii, fig.7,7a. Oligocene.

gloryi Chavan and Fischer 1929 Jour. de Conch.,vol.83(3),p.223, pl.vii,figs.10.18. n. var. Ancilla(Sparella) dubia Deshayes.

goliath Olsson 1922. Bull.Am.Paleo. vol.9,no.39,p.264,pl.7,figs. 22,23. Miocene, Costa Rica.

gontata Cossmann 1910-13. Icon.Comp. des Coq.Foss. De L'Eocene, Des. Env. Paris.

Gracilancilla Thiele 1925. Type, Ancilla sumatrana Thiele. Deutschen Tiefsee Exped., Taf.21,f.11;[Min.191,p.20].

gracilis Broderip & Sowerby 1829. Zool. Journ. vol.4,p.379 Olivella. [Minutes 188,pp.7-9;193,p.8].

gracilis Gray Nautilus, vol.8,p. 104 Olivella

gracilis Lea 1833 Contrib. to Geol., p. 182.Oliva. Tertiary,Ala.

Gracilispira O.P. Olson 1956. Paleont.Bull., N.Z., 24. Subgenus of Baryspira. Type, Ancillaria novaezelandiae Sowerby 1859. Fossil-Recent. New Zealand.

granitella Lamarck 1911. Hist. Nat. vii,p.310. =Oliva textilina Lam.

graphica Marrat 1870 Thes.Conch. p.6,pl.3,fig.36. = Oliva spicata (Röding 1798).[Min. 192, p.5.].

grata Marrat 1871. Thes.Conch.,p.41,pl.25,f.470. = Oliva duclosi var. lentiginosa Reeve 1850 [Minutes 191,p.14].

grateloupi d'Orbigny (Emend) Peyrot 1927 Conch.Neog... L'Aquitaine.

gratiosa Vanatta 1915. Nautilus, vol.29,p.71. = Oliva ispidula(L.).

greenoughi Lea 1833 Contrib. to Geol.,p.183. Oliva.

greenwayae Clench 1937. Proc. New England Zool. Club, vol.16, pp.17-26, pl.1, = Oliva reticularis Lamarck var.

griseoalba von Martens 1897 Conchologische Miscellen II Naturgesch, yr,63,vol.,1,pp.157-180,pls.15-17. = Olivancillaria (Agaronia) testacea (Lamarck). [Min.186,pp.8-12].

griseola Röding 1798 Mus. Bolt. sp.424. Porphyria . nomen nudum.

guayquilensis Bartsch 1928. Jour.Wash.Acad.Sci.,vol.18,p.67,pl.1, fig.10. = Olivella zanoeta (Duclos 1835). [Min.189,p.5].

guildingi Reeve,1850. Conch.Icon.,pl.28,figs.89,a,b. = Olivella nivea (Gmelin 1790). [Minutes 189,p.8].

gulosa Fleming 1943 Trans.Roy.Soc.New Zealand,p.208,pl.xxxi,f.35,36. Baryspira. Fossil, New Zealand.

guttata Fischer von Waldheim 1807 Museum Demidoff, p.62. = Oliva annulata (Gmelin 1790). [Minutes 191,pp.2,3].

guttata Lamarck 1811. Ann. Mus., p.313.= Oliva annulata (Gmelin).

guttula Marrat 1871. Thes.Conch/ pl.12,figs.165-168.= Oliva tricolor Lamarck.

hamiltona Duclos 1858 Proc.1858,p.46
harpularia Lamarck 1811 Ann. Mus. xvi,p.319;Anim. s.vert,X,620. = Oliva spicata (Röding 1798).
harrisi Clark & Durham 1946. Mem.Geol.Soc.Am.,Wash.,vol.16,p.46, pl.24,figs.4,5,8. Agaronia. Eocene.
hasta von Martens 1902. SB. Ges. naturf. Fr. Berlin, p.241 1903. id. Deutschen Tiefsee Exped., vii,p.37,pl.3,fig.13 [Minutes 191,p.19].
hattoni Cox 1948. Schweitz.Paleont. Abh. 66,2,p.53,pl.5,figs.6,a,b. Oliva (Anazola) Neogene.
hebera Hutton 1873 Trans. R.Soc. So. Australia. II,p.147.Ancilla.
helvola F.W. Meuschen 1787 Mus. Gever.248. Ancilla . Rejected.
hemiltona Duclos 1835. Monogr. pl.19,f.3,4/ = Oliva elegans Lam.
hemphilli Johnson 1911. Nautilus, vol.24,p.122. = Oliva spicata (Röding 1798).
hepatica Lamarck 1811. Ann du Mus. xvi, p.320.= Oliva tremulina (Lamarck).
hepatica Marrat (non Lamarck), 1871. Thes.Conch.,pl.3,figs.27,28. = Oliva reticularis Lamarck/
hepatica Röding 1798 .Mus.Bolt.,sp.400. nomen nudum.
hiatula Fischer von Waldheim 1807,Mus.Demidoff. = Olivancillaria (Agaronia) hiatula (Gmelin 1790).
hiatula Gmelin 1790 Syst.Nat. ed. 13, p.3442. Olivancillaria . [Minutes 183,p.3;194,pp.2,3].
hiatula Lamarck 1811. Ann. du Mus.,xvi,p.325,.= Olivancillaria (Agaronia) hiatula (Gmelin 1790). [Min.194,p.2].
Hiatula Swainson 1840, Malacol. 132,322. = Olivancillaria subgenus Agaronia.
hieroglyphica Reeve 1850 . Conch. Icon., pl.24,fig.68. Oliva. [Minutes 192,p.12].
hilgendorfi von Martens 1897.Conchologischer Miscellen, part 2, Archiv. fur Nat.,vol.63. Ancilla. [Mi n.183,16;194,5].
hinomotensis Yokoyama 1922. J. Coll. Sci. Tokyo, vol.44,p.48 Ancilla. Pleistocene, Japan.
hirasei Kuroda and Habe,1952. Check list & Bib. Rec. Moll. Japan. Tokyo. Name for Hirase, 1909, Conch. Mag.,3,pl.4,f.26 = ? Oliva tremulina Lamarck. [Min.192,p.12].
hispidula Blainville Sect. des Sci.Nat., xxxvi,p.36. err pro. Oliva ispidula (Linnaeus).
hollandi Cossmann and Pissarro 1910-13. Icon.Coq.Foss.Eocene,Paris.
holoserica Marrat 1871. Thes.Conch.,pl.13,figs.178,181(Martini) = Oliva tigrina Lamarck. [Minutes 192,p.10].

ickei Martin 1914. Leiden Samml. Geol..Reichmus(2) 1. Java.
idonea Conrad 1838. Foss.Ned.Tert. U.S.(1),Jan.1838. Later issue,. April,1839, wrapper,p.3. Oliva. Mid. Tertiary.
illesca Olsson 1930. Bull.Am.Paleo. vol.17,63,p.117,pl.xx. Olivella. Oligocene,Peru.
immaculata Vanatta 1915. Nautilus vol.29,p.68. var. of Oliva bulbosa (Röding 1798).
immortus Pilsbry & Brown 1917 Proc. Acad, Nat. Sci.Phil.,vol.69, p.33. Subsp. Oliva sayana Ravenel. Oligocene,Calif.
inca Olsson 1930. Bull.Am.Paleo. vol.17,62,p.43,pl.vi,fig.5 Olivancillaria (Agaronia).
inconspicua C.B. Adams,1852. Cat. Shells,Panama, p.50,no.34. Olivella. [Minutes 188,pp.12-14].
inconspicua Marrat 1871(Non Adams). Thes. Conch. f.437. = Olivella nivea (Gmelin 1790). [Min.189,p.8;193,p.9].
incrassata Solander 1786. Catal.Portland,Mus.13, & 171. Oliva incrassata . [Min.184,pp.17-18;187,p.21].

indica Vredenburg 1925. Geol.Surv.,India,50,,p.102. n. var. of Oliva (Strephona) australis.

indivisia Guppy 1896. Proc. U.S. Nat.Mus.,vol.19,p.308,pl.30,f.10. Olivella. Miocene.

indusiaca Reeve 1850. Conch.Icon.,pl.29,f.43,a,b. = Olivancillaria (Agaronia) hiatula (Gmelin 1890).

inflata Bordon 1820. Mem.Roy.Acad.Sci.Torina,vol,xxv,p.204. As Ancillaria in Bronn.,Syst.urw.Konch.,1824,p.51-(Anolax Br.).

inflata Brogniart 1823. Mem.Terr.Vincentin,p.62 Anolax.

inflata Chemnitz) n.n. = Oliva bulbosa (Röding 1798).

inflata Deshayes 1830. Encyc.Meth.,(Vers.) II(1),p.44. Ancilla

inflata Lamarck 1810 Ann. du Mus.,xvi,310 = Oliva bulbosa (Röding).

inflatoacuta Sacco 1890. Cat. pal.Bac.terz. Ancillaria.

inflatula Sacco 1890. Cat.pal.B ac,terz. Olivella.

infrenata Marrat 1871. Thes.Conch.,pl.12,f.161.=Oliva elegans Lam. [Minutes 191,p.15].

inglisia Palmer 1953. B ull. Fla. Geol.Surv.,pl.6,f.5,8,13. Agaronia. Eocene, Florida.

inornata Marrat 1870 . Thes.Conch.,p.13,pl.11,f.155. = Oliva funebralis Lamarck. [Minutes 191,p.15].

inornata E.A. Smith 1879. Pro.Zool.Soc.,p.217,pl.xx,f.56.Recent Japan. = Ancilla sinensis Sowerby.

intermedia von Koenen 1887. Abhr.Geol.Spec.Preus. u.Thuring,vol.X. Ancillaria.

interpuncta T. Martyn 1789. Univ.Conch.,III,fig.112.Oliva. Rejected.

intertincta Carpenter 1857. Mazatlan Cat.,p.465.=Oliva spicata (Röding 1798).

intorta Carpenter 1857. Rept. Brit.Assoc.Aadv.Sci.,1856,p.228, 234,339,352. Olivella. [Minutes 187,pp.16,17].

intricata Dautzenberg 1927. Journ.Conchyl.,vol.71.= Oliva annulata (Gmelin 1790).

intricata Marrat 1871. Thes.Conch.p.27,pl.21,f.344,345. = Olivancillaria nebulosa (Lamarck). [Min.183,8;191,5].

inusta Sowerby 1915. Ann.Mag.N at.Hist.,vol.15,p.165.Olivella.

irisans Duclos 1835 (non Lamarck). = Oliva cryptospira Ford).

irisans Lamarck 1811. Ann.du Mus. ,xvi,p. 312 . nomen nudum Impossible to identify.

isabella Röding 1798. Mus. Bolt. sp.401. Porphyria. Nomen nudum.

isabellina Dautzenberg 1910. Malacologie sw L'Afrique Occidentale, Bordeaux 1910. = Oliva flammulata Lamarck var.

ischnon A.M. Keen 1943. Trans.San Diego Soc.Nat.Hist.,37,pl.4, figs.3,4. Olivella. Miocene, California.

isis Duclos 1844. Chenu Ill. Conch.,vol. II,p.22. Fossil. Oliva.

ispida Link 1807. Rostock,p.96. Porphyria. = Oliva spicata (Röding).

ispida (Link) Marrat 1871. Thes.Conch.pl.2,f.15,16.= Oliva fulgurator (Röding 1798).

ispida Röding 1798 Mus. Bolt. sp.431. Porphyria. n.n.

ispidula Born 1787. ..Voluta . /. = Oliva flammulata Lamarck.

ispidula Fischer von Waldheim 1807 Mus.Demidoff,pp.134,135. = Oliva ispidula (Linnaeus).

Ispidula Gray 1847. Zool. Proc. 140. Proc. Zool. Lon.,clxxix,p.140. Type, by orig, designation, Voluta ispidula Linnaeus. = Oliva Bruguiere.

ispidula Linnaeus 1758. Syst. Nat.ed.12,1188.[Min.182,p.2;186,p.7; 192.p.8].

ispidula Marrat 1871 (pars) Thes.Conch.,,pl.16,f.240. = Oliva broderipii Ducros de St. Germain.

ispidula Martini (Voluta) ii,f.491,492.= Oliva annulata (Gmelin)

ispidus Lam. Ad.Gen.1 p.143 Ex.Paetel.

iwakiensis Nomura & Hatai 1936,Kai Mus.Res.B ull.10.,p.136.Olivella

jacksonensis Cooke 1926 Jour. Wash.Acad.Sci.,vol.16,p.134
Olivella Eocene, U.S.A.
jacksonensis Mansfield 1930 Bull.Fla.State Geol.Surv.no.3,p.53, pl.4,fig.6;Proc. A.N.S.P. 108,p.214,pl.16,fig.5(Jaspidella).
Olivella. Miocene, Florida.
jamaicensis Marrat 1870 Thes.Conch.,p.6,pl.4,f.26 = Oliva reticularis Lamarck.
japonica Pilsbry 1895 Cat.Marine Shells..Coll. by Frederick Stearns Detroit,1895,pl.II,fig.11 Olivella. [Min.191,p.9].
jaspidea Duclos 1835 (non Gmelin) Monogr.pl.8,figs.9,10.
= Oliva duclosi Reeve 1850.
jaspidea Fischer von Waldheim,Museum Demidoff,p.162.
= Olivella jaspidea (Gmelin 1791).
jaspidea Gmelin 1791 Syst.Nat.ed.13,p.3442. Olivella (Jaspidella)
[Minutes 189,pp.17-18].
Jaspidella Olsson 1956 Proc. A.N.S.Phil.,vol.108,p.212. Type, by original designation, Voluta jaspidea Gmelin.
jayana Ducros de St. Germain 1857. Revue Crit.68,pl.3,f.44,a,b.
= Oliva ispidula (Linnaeus 1758).
javana Martin 1914. Leiden,Samml.Geol.Reichmus(2(1) Ancillaria
Java
jogjacartensis Martin 1914. Leiden,Samml.,Geol.,Reichmus,p.129
Ancilla Eocene, Java
johnsoni Higgins 1919 Nautilus, vol.33, p.58 = Oliva miniacea (Röding 1798).
johnsoni Olsson 1956 Proc. ANSP 108,p.198,pl.12,f.8,8a. Miocene, Chipola,Florida. Olivella (Callianax).
julieta Duclos 1835 Monogr. pl.16,f.3,4. Oliva.[Min.184,pp.14,15].

kaleontina Duclos 1835 Monogr. pl.8,f.7,8. Oliva.[Min.184,16;192,9]
karsteni Beyrich Zeitschrift d.Deutsch geol.Ges.V,S.309,Tas.V5(2),2
karsteni J.P.J. Ravn 1907. Mem.Acad.Denmark,ser.7,3(215-379), p.388. Oligocene, Denmark.
keeni Marrat 1870 Thes.Conch. pl.12,f.164. = Oliva elegans Lam.1811.
[Minutes 191,p.15].
koishii Nomura 1935. Sci.Rep.Tohoku Univ.,18,1,p.38(8) pl.iv(1), figs.5,a,b. Olivella.
kyundawensis Vredenburg 1923. Geol.Surv.India,vol.54,p.245. n. var.
Oliva duclosi Reeve. Tertiary, India.

labradorensis Röding 1798. Mus.Bolt.,sp.389.Porphyria . Impossible to identify. n.n.
labuanensis Marrat 1871 Thes.Conch.,p.25,pl.19,f.311,312
= Olivancillaria nebulosa (Lam.1810) [Min.183,7;191,5].
lacertina Quoy & Gaimard 1825. Voy Uranie et Phys.Zool.,432,pl.72, f.4,5. = Oliva bulbosa (Röding 1798).
lacteana Dautzenberg 1927. Journ.Conchyl. vol.71. = Oliva ispidula (Linnaeus 1758).
lactea Marrat 1871 Thes.Conch.,p.30,f.376. = Olivella nivea (Gmelin
[Minutes 189,p.8;193,p.7].
laeve Marrat 1871 Thes.Conch. sp.134,p.26. Err on caption to plate for Oliva laevis Marrat.
laevis Marrat 1871 Thes.Conch.,vol.iv,p.26,pl.20,figs.330-331.
= Oliva similis Marrat 1867 [Min.186,p.6;191,p.8].
laevigata Fischer von Waldheim 1807.Museum Demidoff,p.164.
Ancilla, [Min.191,pp.2,3].
lamarcki Deshayes Ancilla Eocene, Paris.
lamarckii Swainson 1829 Zool.Ill.ser.11,t.76,f.2.=Olivancillaria (Agaronia) hiatula (Gmelin).

lamberti Jousseaume Bull.Soc.Zool.France,vol.ix,p.180-New Caledonia

Lamprodoma Swainson 1840. Type by monotypy;Oliva volutella Lamarck. Malacol. 132,321,1840. The Cabinet Cyclopedia, A Treatise on Malacology,p.321. Subgenus of Olivella.[Min.189,6;194,8].

Lamprodomina Marwick 1931. Type by original designation,Oliva neozelanica Hutton, Fossil,Late Tertiary,New Zealand.

lamellata Guppy 1866 Quart.Jour.Geol.Soc.Lon.,vol.22,p.579,pl.26, fig.9.

lanceolata Reeve 1850 Conch.Icon.,pl.30,f.95,a,b.= Olivella lepta (Duclos 1835). [Min.191,p.12].

lanceolata Martens 1901. Ges.Naturf.Berlin,p.23; figured in Tiefsee Exped.,p.110,1898-90. Ancillaria. Recent, off East Africa. [Minutes 194,p.4].

lanceolata Tate Trans.Roy.Soc. So. Australia. Ancillaria.

lanei F. Lange de Morretes 1938. Livro Jubilar Do Prof.Lauro Travassos,Rio de Janeiro,1938.pp.330-331. Olivancillaria (Agaronia) . [Minutes 186,p.8].

lapillus Vanatta 1915 Nautilus,vol.29,p.71. var. of Olivella biplicata (Sowerby) 1825.

lanei Morretes 1938 Livro.Jubilar do Lauro Travassos,p.339,figs. 5,7. Olivancillaria (Agaronia).

lata Dall 1892 Trans.Wagner Free Inst.,vol.iii,p.45.Olivella Tertiary, Florida

lata Hutton 1884-85 Trans. New Zealand Inst.,XVII,p.325. Ancilla. = Ancilla (Baryspira) depressa Sowerby.

latifasciata Martin 1933 Leidsche Geol.Meded.Leiden,vol.6,p.10, pl.III,figs.18,19. Ancilla.

laumontiana Duclos 1835. Monogr. pl.4 Oliva. Fossil.

laumontiana Lamarck 1803 Ann.Mus. vol.1,p.391. Oliva Fossil.

lebuensis Philippi 1887 Fosiles Terciarios I Cuartarios de Chile p.69,pl.viii,f.13.

lecoquiana Ducros de St. Germain. Rev.Crit.p.43,pl.2,f.20,a-c.1857 Oliva [Minutes 191,p.7].

lentiginosa Reeve 1350 Conch.Icon.,pl.xix,figs.45a,b. = Oliva duclosi Reeve 1850 var. [Min.191,p.14].

lepida Duclos 1835 Monogr. p.25,f.15-20. = Oliva sidelia Duclos 1835 var. [Minutes 182,p.18;186,p.7;191,p.6].

lepida Dufo 1840 Ann.Sci.Nat.(2) (Zool.),vol.xix,p.180. Oliva

lepida Marrat 1871 (not Duclos 1835). Thes.Conch.,p.19,pl.xv, fig.218,219 (not XXV,fig.474). = Oliva athenia Duclos 1835.

lepta Duclos 1835 Monogr. pl.1,f.7,8;Chenu,Ill.Conch.,pl.1,f,7,8. Olivella. [Minutes 191,p.10].

leucophaea Gmelin In Morch Cat.Kierulf,p.18 = guttata Lam.

leucophaea Lamarck 1810 Anim.sand Vert,VII,p.423." Oliva annulata (Gmelin 1790).

leucospira Smith 1908. Ann.N at.Hist. Vol. IV,p.246.Figured in Ill. of Zool. of H.M. Survey Ship,"Investigator",Calcutta, Pt.5, pl.XX (Annandale-Lloyd). Ancilla.

leucostoma d'Orbigny 1842 (non Duclos). Moll. II,p.III. Recent, Sagra,Cuba ? Olivancillaria.

leucostoma Duclos 1835 Monogr. pl.27,f.14-16. = Oliva funebralis Lamarck 1810. [Minutes 191,pp.14,15].

leucozona Adams and Angas 1864. Pro.Zool.Soc.Lon.,p.422,pl.37, f.23. Olivella. [Min.193,pp.2-3].

leucozonalis Gray Zool. Beechey ,Vol.13,fig.24

leucozonias Gray 1836 Zool. Beechey's Voy.,p.130,pl.36,f. = Olivella pulchra (Duclos 1835) [Min.193,p6-7]

leucozonias Reeve 1850 (non Gray) Conch.Icon.,pl.24,f.67 = Olivella pulchella (Reeve 1850).

leveriana Perry 1811 Conch. pl.41,fig.3 = Oliva porphyria(Linnaeus)

lienardi Bernardi 1858 Jour.Conch.,2nd Ser.,vol.3,,p.202,f.4 Ancilla. Pernambuco,Brazil. [Min.183,p.16].

ligata Tate 1887 Trans.Roy.Soc.,Australia. Fossil. Ancilla.

lignaria Marrat 1868 Ann.Mag.Nat.Hist.,vol.2 (4th Ser.),p.212; Thes.Conch.,pl.14,f.195,196. = Oliva cryptospira Ford 1891. [Minutes 190,pp.2-3]. Borneo.

ligneola Reeve 1850 Conch.Icon. pl.21,sp.57,a,b,c [Min.183,p.7].

liguistica B ellardi 1882 MTPL III, p. 224 Ancillaria

limonensis Olsson 1922 Bulla.Am.Paleo.,vol.9,no.39,pp.265-266, pl.7,figs.19,20. Olivella.(Macgintiella) Miocene,Costa Rica

lineata Kiener 1844 Coq. Viv., pl.3,f.4. = Ancilla monilifera Reeve 1864.

lineata Perry 1811 Conch. pl.31. Is a species of Nassariidae.

lineatum Lamarck 1822 Anim. sans Vert.,vii,p.147,no.27(Pyrula) Is Melapium [Minutes 192,p.2].

lineolata A. Adams, 1851 Pro.Zool.Soc.Lon.,p.271. = Ancilla acuminata Sowerby. [Minutes 191,p.20].

lineolata Adanson, n.n. Not binomial.

lineolata Gray 1827 Wood's Index Test. Suppl.,pl.5,f.37; B.M. Beechey Voy.,p.131. = Olivella dama (Mawe 1828)

Lintricula H . & A. Adams 1853. Genera Rec. Moll.,i,141. Lintricula = Olivancillaria d'Orbigny 1839 [Min.194,p.8].

liodes Dall 1904 Wagner Free Inst. Sci.,vol.3,pt.6,pl.58,f.1 Oliva. Florida-

litterata Lamarck 1810 Ann. du Mus.,xvi,p.315. = Oliva sayana Rav.

litterata Röding 1798 (non Lamarck) Mus.Bolten. = Oliva spicata (Röding 1798).

liveoakensis Mansfield 1937 Geol.Bull.Cons.Fla.,p.96,pl.iii,f.7 Olivella Oligocene, Florida

livida Johnson 1911 Nautilus, vol.24, p.121. = Oliva peruviana Lamarck 1811.

locklini Olsson 1956 Proc. A.N.S.P. 108,p.202,pl.14,f.5. Olivella (Pacholiva) Miocene, Florida

longifusa Warner & Hahn 1935 Deut.Geol.Ges.Berlin,87,4,p.245,pl. xviii,figs.24-27. Olivancillaria.

longispira Bridgman 1906.Proc.Malac.Soc.,vol.vii,1906. = Oliva ispidula (Linnaeus 1758).

longispira Sacco 1890 Cat.pal.Bac.terz.

longispira Strebel 1909 Schwed.Sudpolar Exp.(6),1,p.36 S.Georgia Island. Ancillaria.

longispirata Sacco 1890 Cat. pal. Bac. terz.

lubrica Solander = Olivella nivea (Gmelin).

lugubris Lamarck 1811 Ann. du Mus. xvi,p.315.= Oliva episcopalis Lamarck 1810 var.

luschani Oppenheim Berlin Zool.D.Geol.vol.70,p.99 Olivancillaria (Utriculina)

lutaria Marrat Thes.Conch.,pl.20,f.316-318. = Olivancillaria lutaria (Röding 1798).

lutaria Röding 1798 Mus.Bolt. sp.421. Olivancillaria [Minutes 183,p.4; 191,p.3].

lutea Marrat 1871 Thes.Conch.,p.40,pl.24,f.444,445. = Oliva funebralis Lamarck. [Minutes 191,p.14].

luteola Lamarck 1811 Ann. du Mus. xvi,p.323. = Olivancillaria lutaria (Röding 1798). [Min.191,p.3].

lymneoides Conrad 1833 Foss. Shells Tert. N. A.(4),p.44 ;Republished with plates, March 1835,p.42,pl.16,f.6 Ancillaria.

Macgintiella Olsson 1956 Proc. Acad.Nat.Sci.Phil,vol.107,p.205
Subgenus of Olivella . Type by original designation,
Olivella watermani McGinty 1940. [Minutes 189,p.6].
macgintyi Olsson 1956 Proc. ANSP,vol.107,p.185,pl.12,f.3[Min.189,10]
Olivella
macleaya Duclos 1835. Monogr. pl.21,f.13-16.= Oliva oliva (Linnaeus)
maculata Duclos 1835 Monogr. pl.15,f.3. = Oliva annulata (Gmelin)
var. nebulosa Dautzenberg 1927.
maculata Dillwyn 1817. Cat. Shells, p.520.= Oliva tigrina Lamarck
maculata Perry 1811 As Ancilla Conch.pl.31. Is a species of
Cassididae, not of the Olividae.
maculata Schumacher 1817 Nouv.Syst. p.244.= Olivancillaria
(Agaronia) hiatula (Gmelin).
maculosa Swainson. = Olivancillaria(Agaronia) hiatula (Gmelin).
maculifera Martens Conch.Misc. II, p.162.
magna Dall 1903s.Wagner Free Inst.,Phil.,vol.3,pt.6,p.1583 (list).
Dall 1903- n.n.?
magnifica Ducros de St. Germain, Rev. Crit., p.30, pl.1,f.4,a-d
= Oliva miniacea (Röding 1798).
major Bellardi 1882. MTPL III, p.215 Olivella
major Ivolas & Peyrot 1900, var. of Olivancillaria (Agaronia).
major Turton 1932 Marine Shells of Port Alfred, So. Africa,
p.31, pl.vi,Dec.1932. n. var. of Ancilla reevei [Min.191,16].
makawana Ladd 1934 Bull.Bishop Mus., p.230,pl.xi,f.11. Oliva.
maltzani Martens Conch. Misc. vol.II,p.162,pl.15,f.7,10.
mamillata Hinds 1845 Voy Sulphur,pl.11,f.7,8 Ancilla
[Minutes 183,p.16;194,p.5].
mamillospira Sacco 1890 Cat. pal. Bac. terz.
mancinella Olsson 1922 Bull.Am.Paleo., vol.9,p.90.Oliva.
Miocene, Costa Rica
mandarina Duclos 1835 Monogr. pl.1.f.19,20 Olivella [Min.191,12].
Mansfieldella Olsson & Harbison 1953. Type by original designation, Olivella pugilis Olsson & Harbison, Pliocene,Fla.
mansfieldi Olsson 1956 Proc. ANSP, vol.108,p.187. Olivella.
Miocene, Jackson Bluffs, Fla.
mantichora Duclos 1835 Monogr.pl.16,figs.7,8. = Oliva annulata
(Gmelin 1790) var.
marginata Lamarck 1810 Ann du Mus, 16,p.304. Ancilla. [Min.183,16].
marginata Sowerby 1821 Genera of Shells,f.1. = Ancilla cinnamonea
Lamarck [Minutes 191,p.21].
mauritiana Sowerby 1830 Spec.Conch.,p.3,figs.1,2. Ancilla.
[Minutes 183,p.17;194,p.5].
mariae Ducros de St. Germain Rev. Crit. p.50,pl.2,f.26,a,b;
Figured in Kuster,p.43,pl.xi,f.3,4. = Oliva spicata(Röding).
marinhensis L. Cox 1941 Mem.Mus.Min.Geol.,Univ.Coimbra. Ancilla.
Pliocene, Portugal.
Mariona Melvill 1889 (non Vaysière 1879) Melvill in Sowerby,
J. Conch.,vi,p.149,(subgen. Mariona) Z
= Sylvanocochlis Melvill 1889 [Minutes 192,p.3].
marksi Olsson 1956 Proc. ANSP 108,p.194. Olivella (Niteoliva)
Miocene, Ecuador.
marminii Duclos 1835 Monogr.pl.4,figs.16,17. Oliva. Fossil.
marminii Michelin Essai sur quelches Coq. inedites, figs 6,7
Oliva. Eocene, Paris/
marmorata Reeve 1864 Conch. Icon., pl.9, figs.32,a,b. Ancilla.
[Minutes 183,p.16;191,p.20].
marmorea (Chemnitz) = Oliva flammulata Lamarck.
marmorea Marrat 1871 (Martini) Thes.Conch., f.70,72.
= Oliva flammulata Lamarck 1810 [Min.192,p.7].

marmosa Olsson and McGinty 1958 Bull.Am.Paleo. vol.39,no.177, p.38,pl.1. As subspecies of Olivella minuta (Link 1807). [Minutes 189, p.13].

marrati Johnson 1914 Nautilus,vol.28,p.99. = Oliva miniacea(Röding). [Minutes 192, p.9].

marri Dukocizen 1926 Spom.Srpska. Ak.Belgrade,vol.63,p.56 Ancilla. Eocene, W.C. Asia.

marri Lukovic Ann.Geol. Balkan,Belgrade, vol.8, p.59 Ancilla Eocene,Turkestan

martenopsis L. King 1953 Trans.Geol.Soc.So.Afr., p.81, pl.xii, f.26,12. Olivella (Callianax).

martensii Dall 1903 Wagner Free Inst. Sci.,vol.3,pt.6,pl.58,f.4 (no description). Oliva (Omogyma) Miocene,Florida.

martini Dautzenberg 1927 Journ.Conchyl.,vol.71.= Oliva ispidula (Linnaeus 1758) var.

martini Tesch Pal.Timor, vol.5,p.42. Ancillaria. Tertiary.

marysvillensis Dickerson 1914. Univ.Calif.Pub.Geol., vol.7,p.285 Olivula. Eocene,California

masaris Duclos 1835 Monogr.pl.11,f.9;pl.20,f.7,8. = Oliva miniacea (Röding 1798) in part.

mathewsonii Gabb 1864 Pal.Cal.V,1,p.100,pl.18,f.53.Olivella.

maternae Palmer 1937 Bull.Am.Paleo.,vol.7,p.430,pl.lxviii,figs.3,8. n. var. Ancilla staminea.

mauritiana Gray 1850 Figs.Moll.Anim.,vol.iv,p.72. Ancilla.

maura Lamarck 1810 Ann.du Mus.,xvi,p.311. = Oliva oliva (Linnaeus).

mauritiana Marrat 1871 (Martini) Thes.Conch.,pl.10,f.133-140 = Oliva oliva (Linnaeus 1758).

media Meyer 1885 Am.Jour.Sci.,vol.xxix,p.465.Oliva. Upper Eocene

mediocincta Melvill 1904 Proc.Mal.Soc,Lon.,vol.5,p.65. = Olivancillaria gibbosa (Born 1778) var.

megalostoma Meuschen 1787 Rejected work. = Olivancillaria (Agaronia hiatula (Gmelin).

meganosensis Clark & Woodford 1927. Univ. Calif. Publ. Geol., vol.17, p. 110. Oliva. Eocene, Calif.

meganosensis Palmer 1923 Univ.Calif.Pub.Geol.vol.14,p.296 Ancilla. Eocene-California.

melchersi Menke 1851. Zeitschrift für Mal., p.24 = Oliva spicata (Röding 1798).

memnonia Duclos 1844 Chenu Ill.Conch.,pl.17,figs.19,20. = Oliva reticularis Lamarck.

mendezensis Gardner 1945. Tert.Moll.North Mexico, p.217,pl.27, fig.8. Oliva. Upper Oligocene-Northern Mexico.

menkrawitensis Beets 1941. Geol.Mijub.Genootsch Nederl.Kolon. Geol.Ser. vol.13,p.107. Oliva (Galeola).

mercatoria Marrat 1871 Thes.Conch.,pl.17,figs.268,269. = Oliva fulgurator (Röding 1798) [Min.192,p.7].

mexicana T.S. Oldroyd 1921 Nautilus vol.34,pp.117-119. var. = Olivella baetica Marrat 1871. [Min.187,p.9].

mica Duclos 1835 Monogr.pl.1,figs.11,12. = ? Olivella verreauxii (Ducros 1857). [Minutes 189,p,14].

mica d'Orbigny 1842 Sagra,Cuba, p.107 Olivina

mica Marrat 1871 (non Ducros 1835) Thes.Conch. = Olivella petiolita Duclos.

mica Röding 1798 Mus.Bolt. sp.436. Porphyria.

Micana Gray 1858. Zool. Proc. 40/ ;Pro.Zool.Soc.Lon.,vol.26,p.56. = Olivella Swainson. [Minutes 194, p.8].

micans Deshayes. Eocene, Paris.

micans (Solander MS) Dillwyn 1817,Cat.i,p.521.= Olivancillaria nana (Lamarck). [Min.183,p.7;191,p.4].

micula Marrat 1871 Thes.Conch.,pl.25,fig.468 Olivella [Minutes 189,p.13;193,p.9].

miliacea Marrat 1871 Thes.Conch. 441, sp.209,p.39 = Olivella miriadina (Duclos 1835) [Minutes 193,p.9].

millepunctata Duclos 1835 Monogr. pl.25,figs.1-3. = Olivella minuta (Link 1807).

milliacea Marrat 1871 Err. for miliacea on p.39, Thes.Conch.

miliola Duclos 1844 Chenu.Ill.Conch.,vol.II, pl.1,figs.23,24 Oliva

miliola d'Orbigny 1842 Moll.Cuba,ii,p.108,figs.20,22 = Olivella minuta (Link 1807). [Minutes 189,p.13].

minbuensis Vredenbury 1924 Rec.Geol.Survey India,vol.51,p.286.1854 Tertiary, Burma

miniacea Röding 1798 Mus.B olten p.33. Oliva [Min.181,p.12 as Oliva erythrostoma(Meuschen);181,p.32 as O. miniacea; Min.185,p.3;192,p.9].

miniata Link 1807 Rostock,p.95 .

minima Duclos 1835 Monogr. pl.18. Oliva.

minima Lea 1833 Contrib. to Geol.,p.184. Oliva.Tertiary, Alabama

minima Thiele 1925 Deutschen Tiefsee Exped., pl.21,fig.14,seite 155 [Minutes 194, p.5].

Minioliva Olsson 1956 Type by original designation,Olivella perplexa Olsson 1956. Proc. ANSP, vol.108,p.209. Subgenus of Olivella.

minor Dunker 1853 Index Molluscorum,Pl.lv,figs.30,31. = Olivancillaria nana (Lamarck).

minuta Link 1807 Nat.-Samml. der Univ. zu Rostock, p.98 Porphyria minuta Link 1807. Olivella.[Min.189,p.13].

minutissima Kautsky 1925 Abh. Geol.Landesanst,Berlin, vol.97,p.134 Olivella (Lamprodoma). Miocene, Germany.

miriadina Duclos 1835 Monogr. pl.5,figs.1,2. Olivella. [Minutes 188,pp.12,13;193,p.9].

miris Olsson 1956 Proc. ANSP,vol.108,p.214,pl.15,figs.2,2a Olivella

miserula Yokoyama 1929 J.Fac.Univ.Tokyo,vol.2(2),p.343 Ancilla Pliocene.

mississippiensis Conrad 1848 Proc.Acad.Nat.Sci.Phil.,vol.1(2), p.125. Oliva.

misti Olsson 1930 Bull.Am.Paleo.,62,p.40,pl.vi. Oliva. Eocene,Peru

mitreola Lamarck 1803 Ann.Mus.,vol.1(5),p.391,Oliva. Fossil,Paris

modesta Reeve 1850 Conch. Icon., pl.26,fig.83,a,b .= Olivancillaria lutaria (Röding 1798). [Minutes 191,p.3].

monilifera Reeve 1850 Conch.Icon.,pl.27,figs.84,a,b. = Olivella nivea (Gmelin 1790). [Minutes 189,p.8].

monilifera Reeve 1864 Conch.Icon.,vol.15,pl.10,figs.36,a,b. Rec. Swan River,Australia. Ancilla. [Min.183,p.17;185,p.4].

monmouthensis Gardner 1916 Maryland Geol.Surv., Olivella,Cretaceous

Monoptygma Lea 1833 Contrib. Geol. (in part, not Gray) Type M. alabamiensis Lea, Eocene,Alabama. = Chilotygma H. and A. Adams [Min.194,p.4].

montrouzieri Souverbie 1860 Journ.de Conchyl.,viii,207,324,f.3 Ancilla. [Minutes 183,p.17;194,p.5].

montrouzieri Thiele 1925 D. Tiefsee Exped.,xvii,p.191,pl.33(21), fig.19 cf. montrouzieri. = Ancilla bullioides Reeve 1864. [Minutes 191,p.18].

montrouzieri Watson 1886 (non Souverbie) Challenger Rep.,xv,p.229 = Ancilla bullioides Reeve 1864. [Minutes 191,p.18].

moorei Abbott 1951 Nautilus, vol.64,no.4,pp.112,113,pl.7,figs. 1,a,b. Olivella [Minutes 189,p.15].

morgani Allan 1926 Trans.Proc.N.Z. Inst. vol.56,p.342,pl.77,f.4,a,b Ancilla . Cretaceous, New Zealand.

morrisoni Olsson 1956 Proc. ANSP vol.107,p.192,pl.15,figs.3,3a Olivella . [Minutes 188, p.23].

mucronata Marrat 1871 Thes.Conch. IV, p.22, pl.xvii,figs.274,275 = Oliva athenia Duclos 1835 [Min.182,p.14;185,p.4;191,p.5].

mucronata d'Orbigny 1850 Orodr. Paleo. vol.II, p. 314 Oliva

mucronata Sowerby 1830 Spec. Conch., p.8, figs. 47,48- in Broderip and Sowerby. = Ancilla australis (Sowerby 1830)[Min.183,11].

multiplicata Reeve 1850 Conch. Icon, pl.20, fig.52,a,b. = Oliva sayana Ravenel.

murrha Berry 1953 Trans.San Diego Soc. Nat Hist.,vol.XI,no.16, pp.417-419,pl.29,fig.1. Agaronia. [Min.186,pp.8-12].

mustelina Lamarck 1810 Ann. du Mus.,xvi,p.316. Oliva. [Minutes 182,p.22;192,p.6].

muscae Pilsbry 1926 Nautilus vol.39,p.104. New name for Ancilla elongata Gray. [Minutes 183, p.17].

mutabilis Swainson 1840 Treat.Malac.,p.322 Olivella

muticoides Gabb 1873 Trans. Am.Phil.Soc.,vol.15,p.215. Olivella. Miocene, Santo Domingo

mutica Conrad 1846 Proc.Acad.Sci.Phil.,vol.III, p.26. Oliva

mutica Say 1822 An account o f some of the marine shells of the United States, Journ. Acad.Nat.Sci.Phil.,vol.2,p.228. Olivella. [Minutes 189, pp.10-11].

mutica Reeve 1850 (not of Say 1822) Conch. Icon. vol.6,pl.28, figs. 86,b,c;pl.29, figs. 93,a,b. = Olivella verreauxii (Duclos 1857) [Minutes 189,p.14].

mutila White 1887 Arch. do Museu Nac., v.7, p.135, pl.9,f.17,18 Ancilla.

mygdonia Duclos 1844 Chenu Ill. Conch., pl.6, figs.23,24. = Olivella jaspidea (Gmelin 1791). [Min.189, pp. 17-18].

myodia Duclos 1844 Chenu Ill. Conch.,vol. II, p.21. Oliva.Fossil.

myriadina Duclos 1835 Monogr. pl.5, figs.1,2 Olivella [Minutes 188, pp. 13-14].

myriadina (Duclos) Marrat 1871 Thes.Conch. vol.4, p.39,no.208, pl.24 (350), fig.440. = miriadina Duclos. [Minutes 188, pp. 12-13; 193,p.9].[Min.189,p.8].

myriadina d'Orbigny 1842 Sagra, Cuba. Olivina.

myrmecoön Dall 1912 Smith.Misc.Coll., vol.59, no.2, p.4. [Minutes 189, p.17].

nana Lamarck 1811 Ann du Mus. xvi,p.326 Olivancillaria. [Min.183, p.7; 191,p.4].

nana Roualt 1850 Mem.Soc.Geol.Grance(2) III(2),p.502.Ancillaria.

nana (Lamarck) Tryon 1883 Man.Conch., p.91,pl.36. = Olivella minuta (Link 1807).

nana Watson 1886 Challenger Rept., XV, p.230, pl.17, fig.10 Ancilla (Anaulax)- New Zealand

natalia Duclos 1844 Ill.Conch.,p.23, pl.21,figs.17,18. = Oliva duclosi Reeve 1850.

nazaria Duclos 1836

nebulosa Dautzenberg 1927 Journ.Conchyl.,vol.71. = Oliva annulata (Gmelin) var.

nebulosa Lamarck 1810 Anim.sans Vert.,vii,p.436.[Min.183,8;191,5]

nedulina Duclos 1835 Monogr. pl.5,figs.13,14. = Olivella undatella (Lamarck 1810). [Minutes 188, pp.9-11].

Neocylindrus Fischer 1883 Manuel de Conchyliologie, p.598 Oliva tessellata Lamarck, type species.[Min.194,p.8].

neostina Duclos 1835 Monogr. pl.19, figs.11-16. [Min.192,p.12].

nigellus Meuschen 1787 Mus.Gevers.,p.376. Rejected work. = Oliva oliva (Linnaeus 1758).

nigrita Karsten 1789 Mus.Leskeanum, p.216. = Oliva oliva(Linnaeus).

nilotida Duclos 1835 Monogr. pl.18 Fossil.

nitelina Duclos 1835 Monogr. pl.3,figs.1,2. = Olivancillaria (Agaronia) hiatula (Gmelin).

nitens Dunker MS in Mus. Godeffrpy's Cat. iv, p.83, and v,p.117 = ? Olivella simplex (Pease 1867) [Minutes 193,p.3].

nitens F.C. Meuschen 1787 Mus. Gever. 248. Ancilla. Rejected

Niteoliva Olsson 1956 Proc. ANSP, vol.108,p.189. Type by original designation, Olivella minuta (Link) (Voluta nitidula Dillwyn). Recent, West Indies and Caribbean. Subgenus of Olivella.

nitida Wanner and Hahn 1935 Z. deuts.,Geol.Ges.Berlin,vol.87, pt.4, p.246.,pl.xviii,fig.1. Ancillaria.

nitidula Deshayes 1835 Deesc.Coq.Foss., Paris, vol.II, p.741.Oliva

nitidula Dillwyn 1817- Cat. Rec. Shells, p.521,no.45. = Olivella minuta (Link 1807). [Minutes 189, p.13].

nitidula Duclos 1835 (non Dillwyn) Monogr. pl.10. = Oliva paxillus Reeve 1850. [Minutes 192, p.9].

nivea Gmelin 1790 Syst.Nat. ed.13, p.3442. Olivella.[Min.189,p.8].

nivosa Marrat 1870 Thes.Conch.,pl.17, figs.276;pl.25,f.472. = Oliva reticularis Lamarck.

nivea d'Orbigny 1842 Sagra, Cuba, p.106. Olivina

nivea Pilsbry 1910 Nautilus,vol.23, p.102. = Oliva incrassata (Solander) var.

nivea Reeve 1850 Conch. Icon., vol. VI, fig.64

nivea Swainson 1825 Quart.Journ.Sci.,Roy Inst. Grt.Brit., vol.xviii, pt.36, p.285. Ancillaria. = Ancilla balteata Swainson. [Min. 191, p.20].

nobilis Reeve 1850 Conch. Icon., pl.2,fig.3. = Oliva tremulina Lamarck. Recent,Mauritius. [Min.192,p.11].

Nonna Martin 1914 Leiden Samml. Geol.,Reichsmus,vol.II,p.129 Ancilla. Eocene, Java.

nota Marrat 1868 Ann.Mag.Nat.Hist.,vol.2 (4th series),p.213; Thes.Conch.,vol.4,p.30,pl.351. Olivella -British Columbia [Minutes 187,pp.5-10 192,p.4]. = Olivella baetica Marrat

novaezelandiae Sowerby 1859 Thes.Conch., 65,pl.3, figs.48,49 Ancilla. [Minutes 183,p.18].

ntombazana L. King 1953 Trans.Geol.Soc. So. Afr.,p.82,pl.xii, f.22. Ancilla. Miocene, Zululand.

nux Wood 1828 Index Test. Suppl., pl.4,f.33. = Olivella biplicata Sowerby.

nympha Adams and Angas 1863. Pro. Zool. Soc. Lon.,1863,p.422 Olivella. [Minutes 193,pp.4-5].

nymphalis Tate 1887 Trans. Roy.Soc. So. Australia. Olivella. (Cuspidoliva). Fossil,Victoria,Australia.

nysti Harmer 1913 Paleo.Soc.,vol.,p.52 Ancilla. Pliocene,England

obesa Sowerby 1859 Thes.Conch.,p.65,pl.213,figs.44,45. Ancilla. [Minutes 191, p.16].

obesa von Martens 1903 (non Sowerby 1859) D. Tiefsee Exped., vii, p.37. Ancilla. = Ancilla callifera Thiele 1925= = Ancilla reevei Smith 1904. [Minutes 191,p.16].

obesina Duclos 1835 (in part) Monogr. pl.16,figs.9-11. = Oliva spicata (Röding 1798) [Minutes 192,p.5].

obliquatissima Sacco 1890 Cat.pal.Bac. terz. Olivella.

oblonga Marrat 1870 Thes.Conch. pl.2, f.14. = Oliva spicata (Röding 1798). [Minutes 184,pp.20-27;192,p.5].

oblonga Sowerby 1830 Spec.Conch.,1,p.7,figs.38,39. Ancilla. [Minutes 183, p.18].

obovata Von Koenen 1887 Abhr.Geol.Spec.Preuss. u.Thuring,v.X. Ancillaria.

Obsecula Tate 1893 (not Deshayes) Adcock's Hand List So. Aust. Moll. p.5, Proc.Roy Soc.,So.Australia , p.199 = Ancilla petterdi Tate 1883.

obsoleta Bellardi 1882 MTPL III, p.222 Ancillaria.

obsoleta Brocchi 1814 Brrconch.foss.sub. p.330, pl.v,f.6

obsoletum Brocchi 1814 Conch.Subap. p.330. Buccinum. [As Ancilla cbsoletum in Borson,Mem.R.Acad.Sci.,Torina, 1820[[As Ancillaria in Holl.Handb.Petref. III,1830].

obtusa Adams and Reeve 1848 Zool.Samarang, p.31/ Ancillaria.

obtusa Petterd 1886 (non Swainson) Proc. Roy.Soc.Tasmania,p.342 = Ancilla petterdi Tate 1883.

obtusa Sowerby 1830 Spec.Conch. vol.1,p.5. Ancilla.

obtusa Swainson 1825 Quar.Jour.Sci.,xviii,p.282. Ancillaria. [Minutes 183,p.18;191,p.17].

obtusa J. de C. Sowerby 1850. In F. Dixon's Geol.Sussex,p.189 Ancillaria.

obtusaria Lamarck 1822 Anim.sans Vert.,x,p.628. = Oliva tremulina Lamarck1811.

octavia Duclos 1844 Chenu Ill.Conch., pl.28,figs.21,22 = Oliva neostina Duclos 1844. [Min.186,p.6;192,p.12].

oculata Röding 1798 Mus.Bolt. sp.426. Porphyria. n.n.

okawa Yokoyama 1924. J.Coll.Sci.Tokyo,vol.45,p.7. Ancilla. = Ancilla albicallosa (Lischke 1868).

Oliva Bruguiere 1789 Encyc.Meth., 1,xv. Type species, Oliva porphyria (Linnaeus 1758).

oliva T. Dillwyn 1817. Rec. Shells, 513. = Oliva flammulata Lam.

oliva T. Dillwyn 1817 Rec.Shells.521.= Oliva oliva (Linnaeus).

oliva Lamarck 1799. Mem.Soc.H.N. Paris ,70. Oliva. Voluta.

oliva Linnaeus 1758. Systema Naturae, ed.10,p.729, no.350. [Minutes 181, p.6; 192,p.6].

oliva Röding 1798 Mus.Bolt.,sp.410. Porphyria.

olivacea Meuschen 1787 Mus.Gever. n.n. Rejected.

olivacea (Meuschen) Marrat 1870. Thes.Conch. pl.4,figs.46,47, 51-53. = Oliva reticularis Lamarck.

olivaeformis Dreger 1892. Ann.Hofmus. Wien, vol.vii,p.25. Ancillaria.

olivaeformis Stefanini 1917. Mem.Inst. Geol.Univ.Padua,vol.4, p.64. Ancilla.

Olivancillaria d'Orbigny 1840. Type species, Oliva brasiliensis (Chemnitz) = Oliva brasiliana Lamarck = Porphyria urceus Röding 1798 = Olivancillaria urceus (Röding 1798). [Minutes 183,p.2;191,p.3;194,p.8].

Olivaria Rafinesque 1815 Anal.Nat.p.19. = Oliva Bruguiere 1789 [Minutes 194,p.8].

Olivella Swainson 1831. Zoological Illustrations, ser.2, vol.2, expl. pf pl.58 (Oliva pl.2). Type, by subsequent designation, Dall,1909, U.S. Geol.Survey,Prof.Pap.59,p.31, Oliva purpurata Swainson = Olivella dama (Mawe 1828). Recent, Pacific coast of Mexico.[Minutes 194,p.9].

Olivellinae Olsson 1956. Subfamily of Olividae Swainson 1840. ~~X~~ Genus Olivella with subgenera, Proc. ANSP, 1956, vol.108, p.169.

Olivellites C.L. and M.A. Fenton 1937. Am. Mid. Naturalist, Notre Dame, vol.18,1937,p.453. New genus of Olividae, type species, O.plummeri Fenton and Fenton 1937. Pennsylvanian,Texas.

Olivellopsis Thiele 1929.Handbuch,p.333.Section of Belloliva Peile 1922. Type,b.(O) simplex Pease.[Min.193,3;194,9].

Olividae Swainson 1840. (Nom.transl. d'Orbigny 1841 (ex.Olivinae Swainson 1840).

Olivina d'Orbigny 1839. Voyage dans l'Amerique Meridionale,p.417. Type,Olivella tehuelchana d'Orb.,1839. Subgenus of Olivella. [Minutes 194,p.9].

Olivinae Swainson 1840. Subfamily of Olividae.

Olivula Conrad 1832 Foss. Shells. Tert. 25, pl.10,f.5. Type by subsequent designation Cossmann 1899, Ancilla staminea Conrad. Subgenus of Ancilla Lamarck.[Minutes 194,p.9].

olivula Lamarck 1803. Ann.Mus., vol.1,(6),p.475,April,1803. Ancilla.

olivula Lamarck 1811 Ann.Mus. vol.xvi,p.306. Ancillaria.

olorinella Duclos 1835 Monogr. pl.6, figs.15,16. = Oliva reticularis Lamarck.

olympiadina Duclos 1835. Monogr. pl.12,figs.10-12. = Oliva tremulina Lamarck.

Omogymna von Martens 1897 Conch.Misc. 11,p.157. Type,Oliva paxillus Reeve 1850. Subgenus of Oliva.

onaxis Duclos 1844-45 Chenu.Ill.Conch.,vol.II, p.9, pl.20, figs. 17,18. Oliva. Fossil.

onisca Duclos 1844. Chenu Ill.Conch., pl.32, figs.7-9. = Oliva fulgurator (Röding 1798). [Min.192,p.15].

opima Marwick 1924. Trans.Proc. N.Z. Inst.,vol.55,p.200,pl.17, fig.15. Ancilla (Baryspira) .Pliocene,New Zealand.

optima Sowerby 1897. Appen. to Marine Shells of So. Africa,pl.iv, p.42. Recent,South Africa. [Minutes 191,p.17].

oraria O.P. Olson 1956. Paleont.Bull.N.Z. 24,pp.14,pl.2,f.8,9 Baryspira. Pliocene, New Zealand.

orbignyi Marrat 1871 Thes.Conch.,pl.25,f.458. Recent, San Blas, Patagonia.

ordinaria E.A. Smith 1906. Ann.Natal Gov. Mus.i(27). = Ancilla marmorata Reeve 1864. [Min.183,p.18;191,p.20].

ordinaria Turton 1932.Marine Shells of Port Alfred, So.Africa, p.31, pl.vi,1932. Recent,Port Alfred, South Africa. = Ancilla marmorata Reeve 1864. [Minutes 191,p.20].

oriola Duclos 1835. Monogr. pl.10,f.1,2. = Oliva spicata(Röding).

oriola Duclos 1835 Monogr.pl.10 (in part) = Oliva reticularis Lamarck.

oriola Lamarck 1811 Ann.Mus.vol.xvi,p.321. ~~X~~ = Oliva ispidula (Linnaeus 1758). [Minutes 192,p.8].

oriola Lamarck 1822 Hist.Nat.ed.Deshayes,x,622. = Oliva ispidula (Linnaeus 1758). [Min.182,p.4;192,p.8].

oriola Roux Icon.Conch.,pl.3,figs.11,12. = Oliva tigrina Lamarck.

oriolidia Duclos 1835 Monogr. pl.18,fig. Oliva. Fossil.

oriosida Duclos 1844.Chenu Ill.Conch, pl.36,figs.9,10. Oliva. Leseuer,Walnut Hills Fossil Shells,pl.4,f.12.

ornata Marrat 1867. Ann. Mag. Nat. Hist., vol.2,(3rd series) 1867, p. 214;Thes.Conch.,p.13,pl.7,figs.102,103. = Oliva cryptospira Ford 1891. [Min.181,p.20;190,pp.2-3; 191,p.13].

ornata Röding 1798. Mus.Bolt. sp.398. Porphyria ornata. [Minutes 190,pp.2-3].

orycta Von Koenen 1887. Abhr. Geol.,Spec.Preus.u.Thuring,vol.X

orycta Tate Trans.Roy.Soc. So. Australia. Ancillaria.

oryza Duclos 1835. Monogr. pl.1, figs.9,10/ (non Lamarck). = Olivella floralia (Duclos 1835).

oryza Lamarck 1811 Ann. Mus. vol.xvi,p.327. Description too brief to identify. [Minutes 193, p.10].

oryza Reeve 1850 (non Lamarck) Conch. Icon, pl.27,fig.34 = Olivella floralia(Duclos 1835.).

oryza Reeve 1864 Conch.Icon.,pl.11,fig.43. = Ancilla acuminata (Sowerby).

oryzoides Gardner 1937. U.S. Geol. Surv. Prof. Pap.383,pl.xlvi, figs.8,9. Olivella. Chipola, Florida.

osculata Sowerby 1900 Pro.Mal.Soc.Lon.,vol.4,p.3,pl.1,fig.6 Rec. Pondoland. Not an Ancilla = a species of Bullia. [Minutes 183, p.18;191,p.16].

osidia Duclos 1844 Chenu Ill.Conch., vol.II, p.11.Oliva.Fossil.

otaegui Philippi 1887 Los Fossiles Terciarios I Cuartarios de Chile. P. 69, pl.viii, fig.21.

othonia Duclos 1844. Chenu Ill.Conch.,pl.5,figs.22,23. = Oliva tigrina Lamarck.

ovalis Sowerby 1871 Thes.Conch.,69,pl.4,figs.82,83. 2 Ancilla cinnamonea Lamarck.

ovata Marrat 1871 Thes.Conch., pl.18,figs.281,282. = Olivancillaria deshayesiana (Ducros de St. Germain 1857)

ovum-ralli Ford 1889 . Nautilus, vol.3,p.20. = Oliva bulbosa (Röding 1798).

ozodona Duclos 1835 Monogr. pl.5,figs.19,20. = Oliva panniculata Duclos 1835. [Minutes 186,p.6]. .

Pachyoliva Olsson 1956 Proc. ANSP, vol.108,p.201. Type by original designation, Olivella columellaris (Sowerby). Recent, Pacific, Panamic Province. Subgenus of Olivella.

pacifica Marrat 1870 Thes.Conch.p.15,pl,11,fig.151. = ? Oliva mustellina Lamarck. [Minutes 192, p.6].

padolida Duclos 1835. Monogr.pl.13, figs.7,8. Fossil,Italy.

paeroa Fleming 1943. Trans.Roy Soc.N.Z., p.208,pl. xxi,f.33 Baryspira. Fossil, New Zealand.

pagodula Vredenburg 1923. Rec.Geol.Surv.India,54,pp.247-249. Olivancillaria. Tertiary, India,

pakaurangiensis O.P. Olson 1956. Paleont. Bull. N.Z.,24, p.19, pl.4,figs.11,12. Baryspira (Spinaspira)

palawanensis Bartsch Wash.Proc.Biol.Soc., vol.31,p.18. n. subsp. of Oliva tricolor Lamarck.

paleacea Röding 1798 Mus.Bolt. sp.442. Porphyria.

palliata Marrat 1871 Thes.Conch., Ind.X. = Olivella dealbata (Reeve, 1850).

pallida Dautzenberg 1910 Malacologie de l'Afrique Occidentale, Bordeaux. = Oliva flammulata Lamarck 1810, var.

pallida Dautzenberg 1927 Journ.Conchyl.,vol.71. = Oliva sanguinolenta Lamarck.

pallida Marrat 1871 (non Swainson) Index, Thes.Conch.,45 = Oliva reticularis Lamarck.

pallida Perry 1811 Conch. pl.31. As Ancilla , but is not of the Olividae. Is a species of Babylonia.

pallida(Swainson) Marrat, Thes.Conch., pl.21,figs.341-343 = Olivancillaria (Agaronia) hiatula (Gmelin).

pamotanensis Marten Leiden,Samml.Geol. Reichmus(2) Olivancillaria, Java.

panamensis Montfort 1810. Conch.Vol. II, p.387. Oliva.

pananga Olsson 1930 Bull.Am.Paleo,vol.17,pt.62,p.41 Ancilla (Ancillarina) . Eocene, Peru.

panniculata Duclos 1835 Monogr.pl.15,figs.15,16. Oliva. [Minutes 186,p.5;192,p.9].

pantherina Philippi 1848. Abb.xix,1,t.1,f.1.Abh.Conch/v.111(3)p.51 = Oliva julieta Duclos.

papillata Tate 1889 P.B . N.Z., 5,86 Ancilla. [Min.183,p.19].

papillifera Martin 1931. Wetens,Meded.Mijnb.Weltevreden,vol.18, p.13,fig.9. Ancilla (Tortoliva). Eocene, Java.

papyracea Grateloup 1834. Actes Soc.Linne',Bordeaux,vol.vi,p.317 Ancillaria.

papyracea Röding 1798. Mus.Bolt. sp.443 Porphyria. n.n.

paraensis Maury 1924. Mon.Fosseis Terv. Do Brasil, p.174,pl.9, fig.sl,15. Oliva.

paraisa Olsson 1956 Proc. ANSP, 108,p.188. Olivella. Miocene, Costa Rica.

paralamellata Mansfield 1925 Proc. U.S. Natl. Mus.,vol.66,#2559, p.33, pl.5, figs.2,7. Ancilla. Miocene, Trinidad.

pardalis Adams and Angas 1863 Pro.Zool.Soc.Lon.,p.442,pl.27,f.3 = Olivella triticea (Duclos 1835). [Minutes 193,p.4].

parnensis Cossmann 1910 Iconographie Compl.de Coq.Foss.Eocene Des.Env.Paris.

Paroliva Thiele 1929 Handbuch der Systematischen Weichtierkunde, Jena, p.335. Type by monotypy- O.(P.) dubia Schepman. [Minutes 194, p.6].

parva T.S. Oldroyd 1921 Nautilus, vol.34, p.119. = Olivella biplicata (Sowerby 1825) [Min.187,p.18].

parvispira Sacco 1890 Cat. pal. Bac. terz.

parvonitens Sacco 1890 Cat. Pal. Bac. Terz.

parvovittata Sacco 1890 Cat. Pal. Bac. terz.

parvula Marrat 1871 Thes.Conch.vol.4,p.30,no.157,pl.22,(349),f.373 = Olivella nivea (Gmelin 1790). [Min.189,p.8].

parvula Melvill and Standen 1895 Shells from Lifu, I, p.99

parvus Lister (Rhumbus) 1685 H. Conch. t.725,f.13 = Olivella nivea (Gmelin).

parvus Martini 1773 Conch.Cab.II, p.179,pl.49,f.527 = Oliva ispidula (Linnaeus) var. oriola Lam.

pattersoni Clench 1945 Mollusca, vol.1, p.4,p.49 = Oliva reticularis Lamarck var.

patula Deshayes Referred to Ancillopsis in the Pseudolivinae (Gardner).

patula Sowerby 1825 Tankerville Cat. App., p.33, no.2331 = Olivancillaria auricularia (Lamarck).

paxillus Reeve 1850 Conch.Icon.,pl.21, species a,b.Oliva. [Minutes 183, p.23; 185,p.2; 186,p.6;192,p.9].

pedroana Conrad 1856 Pacific R.R. Reports, vol.5,p.327,pl.6, fig.51. Olivella. [Minutes 187,pp. 10-15].

pellucida C.B. Adams 1852 (non Reeve) Adams Panama Shells, no.35. = ? Olivella petiolita (Duclos) [Min.188, p.18].

pellucida Reeve 1850 Conch.Icon. pl.27, f.85,a,b. = Olivella lepta (Duclos 1835) [Min.193,p.9].

perfecta Johnson 1911 Nautilus vol.24, p.122. = Oliva spicata (Röding 1798). [Minutes 192, p.5].

perinflata Sacco 1890 Cat.Pal.B ac.Terz. Ancilla.

perlatecanaliculata Sacco 1890 Cat.Pal.Bac.terz.

perlongata Sacco 1890 Cat. Pal. Bac. terz. Ancilla.

perlucida Meuschen 1787 Mus.Gevers. 248 Rejected work.Ancilla.

perplexa Olsson 1956 Proc. ANSP 108,p.209,pl.16,f.7.Olivella. [Minutes 189, p.17].

perplicata Sacco 1890 Cat.Pal.Bac.terz. Baryspira.

peruviana Lamarck 1811 Ann. du Mus.xvi,p.317.Oliva.[Min.184,9,10].

peruviana Woods 1922 Bosworth's Geol. of Peru, p.105. Olivancillaria (Agaronia).

peterseni Olsson 1956 Proc. ANSP,vol.107,p.191,pl.11,figs.7,7a,7b Olivella. [Minutes 189, p.14].

petiolita Duclos 1844 Chenu. Ill. Conch., pl.1,figs.21,22. Olivella. [Minutes 188, pp.18-20].

petiolita Gould 1856 Carpenter Rept., p.231, -Mexico & Calif. Shells, no.15. = Olivella baetica (Marratt 1870).

petita Jousseaume 1884 Bull.Soc.France vol. ix,p.179.Dactylidia. Recent-Mayumba,W. Africa.

petterdi Tate 1893 Tate and May, Proc.Roy.Soc.So.Australia; Figured Proc.Linn.Soc.,N.S.W., vol.xxvi,p.365.Ancilla. [Minutes 183, p.19].

philantha Duclos 1835 Monogr.,pl.20,figs.5,6.= Oliva tricolor Lam.

philippensis Bartsch 1918 Wash. Proc.Biol.Soc., vol.31,p.181. n. subsp. Oliva episcopalis Lamarck.

phillipi Von Martens 1897. Conchologische Miscellen II,Naturgesch, yr.63, vol.1,pp.157-180,pls. 15-17. = Olivancillaria (Agaronia) testacea (Lamarck). [Min.186,pp.8-12].

phillipsii Duclos 1835 Monogr. pl.18 Oliva.

phillipsii Lea 1833 Contrib. Geol., p.184, pl.6, f.199.Oliva. Tertiary- Claiborne,Alabama.

pica Lamarck 1811. Ann. Mus. xvi, p.310.=Oliva tremulina Lamarck.

pichincha Olsson 1930 Bull.Am.Paleo, vol.17, pt.63, p.15,pl.xx. Oliva. Oligocene-Peru.

pichincha Sheppard 1937. Geol.S.W. Ecuador, p.134, fig.100. Miocene, Ecuador.

picholina Brogniart 1823 Mem.Terr.Vicentin, p.63, pl.3,f.4. Oliva.

picta Reeve 1850. Conch.Icon.,pl.26,fig.79. = Oliva dactyliola Duclos 1835.

pindamella Duclos 1835. Monogr.pl.33, f.7,8. = Oliva sanguinolenta Lamarck 1810.

pindarina Duclos 1835. Monogr. pl.16,figs.7,8. = Oliva spicata (Röding 1798) var. [Min.184, p.24].

pinguis Dillwyn 1817 Cat.Rec.Sh. = Olivancillaria brasiliana(Lam.) = O. urceus (Röding 1798). [Min.171,p.3].

pinguis Guppy 1873. Proc.Sci.Assoc. Trinidad,vol.2, no.2, p.83, pl.1, fig.3-- Reprint Bull.Am.Paleo, vol.8, p.215,216-1921 Photo. of paratype in (?). Ancillaria.

Pinguispira Finlay 1927. = Ancilla Lamarck.

pintamella Duclos 1835. Monogr. pl.33, figs.7,8. = Oliva sanguino--lenta Lamarck. [Minutes 192, p.11].

piperata Marrat 1867. Ann.Mag.Nat.Hist., vol.2(3rd series),p.214. = Olivella jaspidea (Gmelin). [Min.189,pp.17-18].

piperita Marrat 1871. Thes.Conch.pl.23,figs.402,403. Error for piperata Marrat 1867.

pipita Duclos 1835. Monogr. pl.18,figs.3,4. Fossil.

pirabica Maury 1924 .Mon.Fosseis Terc. Do. Brasil, p.174, pl.9, figs. 2,6,8. Oliva.

plana Marrat 1871. Thes.Conch., sp.279, p.4, fig.463. Olivella [Minutes 193, p.10].

plata Ihering 1909. n. var. Olivancillaria auricularia (Lamarck) Ann.Mus.Nac. Buenos Aires, vol.10,p.432.

platensis R.A. Phillipi 1893. An.Mus.Nac.Chile,Santiago,p.8,lam. I,fig.12. Olivancillaria.

platycephala Powell and Bartrum 1929. Porc.N.Z. Inst.,vol.60, p.439,pl.36,figs.15-18. Tertiary, New Zealand.

plicaria Lamarck 1811. Ann Mus. xvi, p.327. Oliva. Fossil.

plicata Fischer von Waldhein 1807,Mus.Demidoff,90,p.161 .Oliva.

plicata Lea 1833. Contrib. to Geol.,p.181. Anolax. Tertiary, Claiborne.Alabama.

Plochelaea Gabb 1872.Pr.Acad.Nat.Sci.Phil,p.271.pl.11,f.5. Subgenus of Oliva Brug. Wenz places in the Mitridae. [Min.194,p.9].

plumbea Dillwyn 1817 Cat.Rec.Shells. West Africa. [Min.192,p.3].
XX plummeri C.L. and M.A. Fenton 1937. Am.Midland Naturalist,Notre
Dame, vol.18,pt.3,p.453. Olivellites.
poenitens Vredenburg 1923. Rec. Geol.Surv.India,vol.54,p.250.
Ancilla (Sparellllina) . Tertiary, India.
poinciana K.V. Palmer 1953 Bull.Geol.Surb.Fla. Geol.,p.11,31,
pl.6,f.7,10. Olivella,Callianax.
polita Marrat 1870. Thes. Conch.,p.10,pl.6,figs.80,81.
= Oliva sayana Ravenel.
polpasta Duclos 1835. Monogr. pl.16,figs.1,2. = Oliva spicata
(Röding 1798) var. [Minutes 184, p.24].
ponderosa Duclos 1835. Monogr. pl.13,figs.8,9.]Min.182,24;192,10].
porcea Marrat 1870. Thes. Conch.,p.6;pl.3,f.35.= Oliva spicata
(Röding 1798). [Minutes 192, p.5].
porphyracea Perry 1811. Perry Conch, pl.xli,fig.2.
= Oliva miniacea (Röding 1798).
porphyritica Marrat 1871. Thes.Conch. p.12,pl.vii,fig.110.
= Oliva miniacea (Röding 1798) var. johnsoni Higgins.
[Minutes 192, p.9].
Porphyreticus d8Argenville (Cylinder) =Oliva porphyria(Linne').
porphyria Linnaeus 1858 Syst.Nat. Voluta. [Min.184,p.2].
Porphyria (Röding 1798), Mus.Bolten. p.32. = Oliva Bruguiere.
[Minutes 194, p.10].
porphyria Röding 1798 Mus.B olt. sp.386. Porphyria.
= Oliva porphyria (Linnaeus).
porphyrio G. Cuvier 1798 Tab.Elem.,410 Oliva.
porphyritica Martini/ = Oliva porphyria (Linnaeus).
porteri Dall 1910. Nautilus, vol.23,pp.133,134. = Olivella baetica
(Marrat in Sowerby 1871). [Minutes 187,pp.8,9].
portoricoensis Hubba rd N.Y . Acad.Sci. vol.3, p.156. New var.
Olivella muticoides- Tertiary,Porto Rico.
posti Dall 1915 Bull. U.S. Nat. Mus.., no.90,p.49. Oliva.
Oligocene, Florida.
praenorminata Cossmann 1912. Rev.Crit.Paleozool.,16,p.215
New name for Oliva angustata Tate.
praslinoides Lesson 1831. Voy "Coquille", Zool..II,(1),p.117.Oliva
prefloralia Olsson and Harbison 1953. Pliocene Moll. of So.Fla.
p.185,pl.30,figs.1,1a/ Olivella.
prisca Ihering 1907. Less. Moll.Foss.Du Tert.,...De L'Argentine,
p,370,fig.15. Olivancillaria.
pristina C.P. Olson 1956. Palcont. Bull. N.Z., 24,p.16,pl.3,f.14,15
Baryspira(Gemaspira). Oligocene.
proavia Pilsbry and Johnson 1917. Proc.Acad.Nat.Sci.Phil.,vol.
69,p.164. Oliva. Oligocene,Santo Doming o.
procera Kautsky 1925 Abh. Geol. Landesanst, Berlin, vol.97,
p.184. n. var. Oliva dufresnei . Neocylindrus.
Miocene, Germany.
propatula Conrad 1849 Proc. Acad.Nat. Sci., Phil.,vol.4, pp.155-156
= Olivancillaria (Agaronia) testacea (Lamarck).
[Minutes 183,p.3;186,pp.8-12;].
propinqua Marrat 1870. Thes. Conch., pl.11,figs.141,142.
= Oliva funebralis (Lamarck 1810). [Minutes 191,p.14].
pseudo-australis Tate 1887 Trans.Roy.Soc. So. Australia, vol.x,
1887
/pseudoconus Sacco 1890 Cat.pal.Bac. terz. Ancillaria.
Pseudodactylus Hermannsen 1847. = Pseudoliva Swainson 1840.
Pseudoliva Swainson 1840. Treat.Malac.,82, and 306. Type, P.
crassa (Gmelin). West Africa. [Min.192, p.3].
Pseudolivinae Thiele 1931-As subfamily of Olividae/ Handbuch der
Syst. Weich., p.330. [Minutes 192, p.3].

pseudonana F.E. Eames 1951 Phil.Trans.Roy.Soc.,p.3,pl.4 & 90
Ancilla, Eocene, Pakistan.
puelcha Duclos 1835.Monogr. pl.4,f.4-6 (non d8Orb. nor Duclos
in Chenu) . = Olivella tehuelchana (d' Orbigny).
puelchana d8Orbigny 1841. Voy.Amer. 38, p.418, pl.59,figs.13-19.
Olivella. [Minutes 189, p.20].
pugilis Olsson and Harbison 1953. Pliocene Moll. So. Fla.,p.188,
pl.24, fig.7;pl.29, figs.5,5a.
pulchella Duclos 1835. Monogr. pl.5,figs.11,12. Olivella.
[Minutes 193, p.6].
pulchella Reeve 1850 (non Duclos) Conch.Icon., pl.30, figs.98,a,b
= Olivella nivea (Gmelin 1790). [Minutes 189,p.8].
pulchra Marrat 1868 Ann. Mag. Nat. Hist.,vol.2 (4th series),
1868, p.214. = Olivella dealbata (Reeve 1850).
[Minutes 193, p.8].
pulicaria Marrat 1871. Thes. Conch., pl.25, f.464.
= Olivella gracilis (Broderip and Sowerby 1829).
pulla Marrat 1871. Thes. Conch., pl.25, f.411. = Olivella anazora
(Duclos). [Minutes 191, p.12].
punctata Marrat 1870. Thes. Conch. pl.2, f.12,13. = Oliva spicata
(Röding 1798) var. venulata Lamarck.
punctata F.C. Meuschen 1787. Rejected work. Ancilla.
punctata Röding 1798 Mus. Bolt. sp.597. Porphyria.
punctulata (Marrat) Johnson in Nautilus, vol.28,p.115. Error
for punctata Marrat.
punctulifera Gabb. Acad. Sci.,Phil.Jour.,2nd Ser.,vol.4,p.381,
pl.67,fig.22. Agaronia. Tertiary, Wheelock,Texas.
pupa Sowerby 1840 Trans.Geol.Soc.Lond.(2),vol.v,pl.xxvi.Oliva.
pupillata Tate 1887 Trans Roy.Soc. So. Australia. Ancillaria.
pura Reeve 1850 Conch.Icon. pl.30, fig.97; = Olivella bullula
(Reeve 1850) ? [Minutes 189,pp.15-16;189,p.21].
pura Sowerby 1892. Marine Shells of So. Africa, p.17,pl.1,fig.15.
Recent, Port Elizabeth, So. Africa. = Ancilla marmorata
Reeve 1864. [Minutes 191, p.20].
pura Sowerby 1901. Pro.Mal.Soc.Lon.,vol.4,p.213. = Ancilla
marmorata Reeve 1864. [Min.183,p.19;191,p.20].
purpurata Swainson 1831. Zool.Ill. ser.2,pl.2,pl.2(58),f.1.
= Olivella dama (Mawe 1828).
pruensis Martin 1914. Leiden Samml. Geol. Reichmuc,vol.II,p.129.
Ancilla. Eocene, Java.
pusilla Marrat 1871. Thes.Conch,vol.4,p.29,no.150,pl.21,(348),
figs.356-358. [Minutes 189,p.12].
pusilla Martin 1931. Wetens. Meded. Mijub. Weltvreden 18,p.12.
Ancilla. Eocene, Dutch East Indies.
pusilla Phillipi 1887 Los Fosiles Terciarios I Cuartarios de
Chile, p.69, pl.viii,f.15.
pycna Berry 1835. Pro.Mal.Soc.Lon.,1935;vol.xxi,pt.iv,pp.262-5.
= Olivella pedroana (Conrad 1856). [Minutes 187,pp.14-16].
pygmaea Reeve 1850. Conch. Icon. pl.26,f.75. Oliva. [Min.192,9].
pyramidalis Reeve 1864. Conch. Icon., pl.4, fig.11,a,b.
= Ancilla australis Sowerby.
pyriformis Philippi 1887 Los Fosiles Terciarios I Cuartarios
de Chile,p.68, pl.8, f.11.

quadriplicata Clark Univ.Calif. Publ. Geol.,Bull. Dept. Geol.
no.11, p.185. Olivella. Oligocene.
quartus Rumph. 1741 Amboinscae Rar. p.119,pl.39,f.4 = Oliva
oliva (Linnaeus 1758) var. rumphi Dautzenberg 1927.
quercina Röding 1798 Mus.Bolt. sp.418 Porphyria.

quersolina Duclos 1835. Monogr. pl.10, figs.7,8. = Oliva episcopalis Lamarck 1810.

rakhiensis F.E. Eames 1951. Phil. Trans. Roy.Soc., p3,104,pl.1, f.49. Eocene, Pakistan.

rambangensis Martin Leiden Samml.,(2) 1. Ancilla. Fossil.

Ramola Gray 1858. Proc. Zool. Soc. Lon.,vol.26,p.47. Type by monotypy, Oliva volutella Lam. [Min.194,p.7].

Ramoliva Cotton and Godfrey 1932. South Australian Naturalist, vol.13,p.54. Type species,O. adiorygma Verco 1909. Subgenus of Olivella. [Minutes 187,p.3;193,p.5].

rasa Martin 1914. Leiden,vol.2,p.129.Leiden Samml.Geol.,Reichmus., vol.II,p.129. Ancila.

rasamola Duclos 1835 Monogr.pl.6,figs.5,6= Olivella volutella (Lam.).

raulini Peyrot 1927. Actes Soc. Linn. Bordeaux,vol.78,suppl. p.186. Ancilla. Tertiary- Aquitane.

razamola Duclos 1835. Monogr. pl.6,(n. et f.). = Olivella volutella (Lamarck 1811).

reclusa Marrat 1871. Thes.Conch. pl.17,f.264. = Oliva retisularis Lamarck.

reevei Ducros de St. Germain 1857. Rev. Crit. p.104,pl.3,fig.100, a,b, . =e Olivella nivea (Gmelin 1790). [Min.189,p.8].

reevei Morch 1860. Beitrage sur Mölluskenfauna Central-Amerika8s, Malakozool, Blatter. = Olivancillaria (Agaronia) testacia (Lamarck). [Minutes, 186, p.11].

reevei Smith 1904. Jour.Malac., vol.xi,p.29. Ancilla. Recent, Port Alfred, So. Africa. Ancilla. [183,p.19;191,p.16].

rehderi Olsson 1956 Proc. ANSP, vol.107,p.181,pl.10,f.7. Olivella. [Minutes 188, p.23].

relesiana Iredale 1931. Rec. Aust. Mus., Sydney, vol. 19,pt.5, p.314, pl.xxiii, fig.9. Ancillaria.

rembangensis Martin. Leiden, Samml. Geol. Reichmus (2)1. Ancillaria, Java.

reticularis Lamarck 1811. Ann. du Mus., xvi,314,no.16. Oliva. [Minutes 192, p.7].

reticulata Röding 1798 Mus.Bolt. nomen nudum- assigned by some authors- = Oliva sanguinolenta Lamarck.

rimuensis D.F. Olson 1956 . Paleont. Bull. N.Z., 24, p.27, pl.6, f.19,20. Baryspira(Gracilispira). Pliocene.

ringens Solander MS = Olivancillaria (Agaronia) hiatula(Gmelin).

riverae Olsson 1856. Proc. ANSP vol. 107,p.179,pl.10,figs.4,4a. Olivella. [Minutes 188,p.23].

robesonensis Gardner 1948. U.S. Geol.Surv. Prof. Pap. 199B, p.258, pl.38,figs.16,17. Oliva.

robusta Marwick. Trans. & Proc. N.Z. Inst.,vol.55.Baryspira.

rosacea Bon. E. Sism. Syn.Method,p.43. Oliva.

rosalina (Duclos) Marrat = Olivella rosolina (Duclos 1835).

rosolina Duclos 1835. Monogr. pl.1, figs.1,2/ Oliva. [Minutes 189, p.7].

rotunda Dall 1889. Blake Report, Bull. Mus. Comp. Zool., vol.18, pt.2, pp. 134,135. Olivella . [Minutes 189, p.7].

rubicunda Roding 1798. Mus. Bolt., sp.422. Porphyria.

rubiginosa W. Swainson 1823. Phil.Mag.lxii(308) 403 Ancilla. China Sea. [Minutes 183, p. 19].

rubiginosa Swainson 1825. Quart.Jour.Sci.,Roy.Inst.,Gr.Brit. vol. xviii,(36), p.283. Ancillaria. China Sea.

rubra Marrat 1871. Thes.Conch. vol.4,p.40, no.217,pl.25,(351), figs. 459,460. = Olivella dealbata (Reeve 1850). [Minutes 189, pp.11-12].

rubrolabiata H . Fischer 1902. Journ. de Conch., L,p.409,pl.viii. Oliva. [Minutes 186,p.2].

ruffina Röding 1798 Mus. Bolt. sp.388. Porphyria.

rufifasciata Reeve 1850. Conch. Icon., pl.28,figs.88,a.b. = Olivella mutica (Say 1822). [Minutes 189,pp.10,11].

rufifasciata Carpenter 1856. Report, p.339. = Olivella baetica (Marrat).

rufofulgurata Schepman 1911. Siboba Exped. Tijs Ehr ;Vol. viii, p.67, Bimi, W. Coast of New Guinea,Celebes,Kei Ids. Oliva. [Minutes 185, p.4; 186,p.3].

rufopicta Weinkauf in Kuster 1878.p.88,pl.23,figs.11,12. = Oliva aniomina Duclos 1835. [Minutes 191,p.6].

rufula Duclos 1835. Monogr. pl.19, figs. 9,10.; Marrat, 197,198; Wk. 23,89. Philippines. [Minutes 182,p.23;192,p.7].

rumphi Dautzenberg 1927. Jour.Conchyl.,vol.71. = Oliva oliva (Linnaeus 1758), var.

sabulosa Marrat 1868. Ann. Mag. Nat. Hist., vol.2,(4th series), 1868, p.213. = Oliva textilina Lamarck. [Min.192,p.10].

salinasensis Bartsch 1928. Jr.Wash.Acad.Sci., vol.18,p.67. Santa Elena,Ecuador. = Olivella torgina (Duclos 1835).

salisburiana Duclos 1835. Hist. Monogr.pl.18. Oliva. Fossil.

salisburiana Sowerby 1821. Mineral Conch., vol.III, p.160. Oliva.

samarensis Vanatta 1915. Nautilus, vol.29, p.71. = Oliva ispidula (Linnaeus 1758).

sancti-dominici Maury. Bull. Am. Paleo., vol.5, p.233. Olivella. Tertiary, Santo Domingo.

Sandella Gray 1857. Guide to Systematic Distribution of Moll. in the British Museum, p.26. = Amalda H. & A. Adams 1853. [Min.193, p.11;194,p.10].

sandwichiensis Pease 1860. Pro. Zool. Lon.,1860, p.145. = Oliva paxillus Reeve 1850. [Min.182,p.17;192,p.10].

sanguinolenta Lamarck 1811. Ann. du Mus.,xvi,316. Oliva. [Minutes 181,p.9;185,p.3].

santana Loel and Corey 1932. Univ.Calif.Pub.Geol.,vol.22, pt.3, p.240, pl.xlvi, figs.10-12. Olivella. Miocene,California.

santander Gardner 1945. Tert. Moll. No. Mexico, p.217, pl.27,fig.12 n. var. Oliva mississippiensis Conrad. Oligocene,N.Mexico.

sarda Reeve 1864. Conch. Icon., pl.9, fig.35,a,b. = Ancilla cinnamonea Lamarck.

saturata Dautzenberg 1927 .Journ.Conchyl., vol.71. = Oliva miniacea (Röding 1798), var.

saxosa Olsson 1928. Bull. Am. Paleo., vol.14, no.52, p.94. Olivancillaria (Agaronia). Tertiary, N. Peru.

sayana Ravenel 1834. Catalogue of Recent Shells, p.19.[Min.184,3,5].

scamba Conrad 1832. Foss. Shells Tert. No.Am.,(2),p.25 Ancillaria. Tertiary,Claiborne,Alabama.

scaphella Sowerby Thes.Conch.,pl.2, figs.37,38. Recent , Red Sea. Ancilla. = Ancilla mauritiana Sowerby 1830.

Scaphula W.H.Benson 1834. Pro.Zool.Soc.Lon.,II(20), 91-L.

Scaphula Swainson 1840 (non Benson 1834). The Cabinet Cyclopedia: A Treatise on Malacology, p.322. Type by monotypy, S.patula Sowerby. [Minutes 194,p.10].

sinensis F.C. Meuschen 1787. Mus. Gevers. Ancilla. Rejected work.

schumacheriana Beck 1858. Cal.Proc. 1858,p.46.

scitula Marrat 1870. Thes. Conch.,p.9, pl.6,figs.76,77. [Minutes 191, p.15].

scripta Duclos 1835. Monogr. pl.10. = Oliva scripta Lamarck 1811.

scripta Lamarck 1811/ Ann. du Mus.,xvi,p.315.[Min.182,p.26; 185,p.3; 191,p.14].

scurra Marrat 1871. Thes.Conch., p.31, fig.380. = Olivella dealbata (Reeve 1850). [Minutes 189,p.8;193,p.8].

selasia Duclos 1835. Monogr. pl.2,figs.19,20. = Olivella volutella (Lamarck 1811).

semilaevis Tenison-Woods 1879. Fossil,Victoria,Australia.

semilignitica Aldrich. Bull.Am.Paleo., vol.9, no.37,p.13. Olivella, Eocene.

seminuda Martin 1912. Wetens.Meded. Mijnb.,Weltevreden, vol.18,p.12 fig.9, Ancilla (Tortoliva). Eocene, Dutch East Indies.

semistriata Gray 1839. Zool. Beechey's Voy.,p.130,pl.36,fig.10. Olivella. [Minutes 188, pp.4-6].

semisulcata Gray 1858. Pro. Zool. Soc. Lon., p.55- as Olivina. = Olivella semistriata (Gray 1839).

semmelinki Schepman. Notes Leyden Mus. XII, p.196,figured idem, Vol. XIII, pl.ix.

senegalensis Lamarck 1811. Ann. du Mus., xvi,p.318. = Oliva peruviana Lamarck.

sepimentum Rang 1832. P.S. Rang, Magasin de Zool.,II, 1832, pl.18. Fulmentum. Buccinum. Is type species of Fulmentum in Pseudolivinae. Golf von Guinea (Prinzen-Insel). [Minutes 192, p.4].

sepulturalis Lamarck 1810. Hist,Nat., vii, p.401. = Oliva oliva (Linnaeus 1758) var.

sepultura-principis Röding 1798. Mus.Bolt., sp.403.Porphyria.

serena d'Orb., 1842. Amer.Merid.(Mal.), p.116. Oliva.

sericea Röding 1798. Mus.Bolt.,p.35. species 390. = Oliva textilina Lamarck (in part).

shepardi Dall 1900. Trans.Wagner Free Inst.,Phil.,vol.III,p.46. Ancillaria. Tertiary.

siamensis Duclos 1844.Chenu Ill.Conch.,vol.II.p.12. Oliva.

siberytensis Thiele 1925. Deutschen Tiefsee Exped. pl.21,fig.10. Ancilla. [Minutes 194, p.5].

sidelia Duclos 1835. Monogr.pl.19.figs.1,2. Oliva. [Minutes 182,p.18;185,p.2;191,p.6].

signata Lischke 1873. Mal.Blatt. vol.xxi,p.20; Fully described in Jap.Meer.Conch.III, p.44, pl.ii,figs.26,27. = Olivella spreta Gould 1860.[Minutes 191,p.9].

similis Marrat 1867. Ann. Mag. Nat. Hist.,vol.20,(3rd series), p.215;Thes.Conch. pl.14,figs.205,207. = Oliva lecoquiana Duclos ? [Minutes 191,p.8].

similis Sowerby 1871. Thes.Conch.64,pl.1,f.17. Ancilla. [Minutes 191, p.21].

simondsi Trask 1922. Univ.Calif. Publ.Geol.,vol.13,p.159. Oliva. Tertiary, Calif.

simplex Hupe' 1854. Hist.Chil.Zool.

simplex Pease Am.Jour.Conch.,vol.III, p.281,pl.23,fig.24. Olivella (Callianax). Recent, Paumotu Island. [Minutes 193, p.3].

sinensis Sowerby 1871. Thes.Conch., pl.3, figs. 50,51.Ancilla. [Minutes 183, p. 19].

singularis Ravn 1907. Mem.Acad.Denmark, ser.7,3,p.388. Ancillaria. Middle Oligocene, Denmark.

sismondana d'Orbigny.

sismondana Bellardi 1882. MTPL p.221. Ancilla.

smithi Bridgman 1906. Mal.Soc.Lon.,vol. viii.

solea F.C. Meuschen 1787. Mus. Gesorv.,248. Ancilla. Rejected

solidula Verco 1909. Proc.Roy.Soc. So. Australia, vol.33,p.338, pl.xxv,figs.7,8. Olivella. Recent,S.Aust.[Min.193,p.5].

songoënsis Martin 1914 Leiden, Samml. Geol.,Reichmus, 2, pp.129-133. Ancilla. Eocene,Java.

southlandica Fleming 1948. New species and genera of marine Moll. from the Southland Fiords, 1948, p.90. Trans.Roy.Soc. N.Z. p.90,pl.8,fig.9. Ancilla.(Baryspira).[Min.183,p.19].

sowerbyi Anton 1839. Vers.Conch., p.102.

sowerbyi Ducros de St. Germain 1857. Rev. Crit., p.105, pl.3, figs.103,a,b. = Olivella rosolina (Duclos 1835).

sowerbyi Marrat 1870. Thes.Conch., figs.114,115. = Oliva reticularis Lamarck. Recent, Jamaica.

sowerbyi Michelotti/ N. Jahrb, f.Min.,p.56.Ancillaria. n.n. 1846.

sowerbyi Michellotti 1847 .Nat.Verh.Hollandsche Maat. Weten.te Haarlem (2) III(2),p.334. Ancillaria.

soverbii Marrat 1870. Error om p.13 of Thes.Conch. for sowerbyi Marrat (caption to plate).

Sparella Gray 1857. Guide to the Syst.Dist. of Moll. in the British Museum, p.26. = Ancilla Lamarck. [Min.194,p.10].

Sparellina P. Fischer 1883. Manuel de Conchyliologie, p.600. = Ancilla Lamarck. [Minutes 194, p.11].

speciosa Rutsch 1934. Abh. Schweiz.Paleo.Gessell, 54,55,p.78, pl.v,figs.6,7, text fig.10. n. var. Ancilla (Eburna) glabrata . Tertiary.

spicata Röding 1798. Mus.Bolt. Oliva. [Min.184,pp.20-27;192,p.5].

Spinaspira O.P. Olson 1956. Subgenus of Baryspira. Type: B.(S.) stortha Olson. Miocene, New Zealand. Pal.Bull.N.Z. 24.

spinigera Marshall 1918. Trans. & Proc. N.Z. Inst., vol.50, p.267, pl.20, figs. 1,1a. Ancilla. Tertiary,New Zealand.

spissa Rouault 1850. Mem.Soc.Geol. France(2) III(2),p.501. Ancillaria.

spissa Waring 1917. Proc.Calif.Acad.Sci.,vol.7,p.85. Olivella. Eocene,California.

splendidula G. Sowerby 1825. Tank.Cat. App. p.32.Oliva. [Minutes 184, p.11].

spreta Gould 1860. Proc.Boston Soc.Nat.Hist.,vol.7,pp.323-340. Olivella. [Minutes 191, p.9].

spreta Smith 1879. Proc.Zool. Soc.Lon., pl.xx,fig.55 = Olivella spreta Gould 1860. [Minutes 191,p.9].

spretoides Yokoyama 1920. Jour.Coll.Sci. Tokyo,vol.44,p.47. Olivella. Pleistocene and Recent. [Minutes 191,p.9].

springvalensis Mansfield 1925. Proc. U.S. Nat. Mus., vol.66, #2559, p.35, pl.5, fig.5. Ancilla. Miocene,Trinidad.

stainforthii Reeve 1850. Conch. Icon.,pl.xix,fig.40. = Oliva duclosi Reeve 1850, var. lentiginosa Reeve 1850. [Minutes 191, p.14].

staminea Conrad 1832. Foss. Shells. Tert. No.Am.(2),p.25 Ancillaria. Tertiary,Claiborne,Alabama.

staminea Duclos 1835. Monogr. pl.18. Oliva.

staphylea Röding 1798. Mus.Bolt. sp.447. Porphyria.

stegeri Olsson 1956. Proc. ANSP, vol.107, pl.14,fig.10 Olivella. [Minutes 189, p.9].

stellata Duclos 1835. Monogr. pl.8, figs.11,12. = Oliva ispidula (Linnaeus 1758) var.

steermae Reeve 1850. Conch.Icon.,pl.18,fig.37. Olivancillaria. [Minutes 194, p.3].

stortha O.P. Olson 1956. Paleont.Bull.24, N .Z., p.18,pl.4,f.1,2/ Baryspira. Miocene, New Zealand.

stortha irrisa O.P. Olson 1956. supra. p.18,pl.4,f.3,4

Strephona Browne 1756. Hist.Jamaica 408. = Oliva Bruguiere.

Strephonella Dall 1909. U.S. Geol. Surv. Prof. Pap. 59,p.32. Type species, Olivella undatella (Lamarck). Subgenus of Olivella. Or subgenus of Oliva by some authors. [Minutes 188,p.9].

striata T. Martyn 1789. Univ.Conch., III, fig.111/ Rejected work.

striata Swainson 1829. Zool. Illust.(2) 1(8),pl.40. Oliva.

stricta F.C. Meuschen 1787. Mus. Gever.246. Ancilla. Rejected.

strigata Reeve 1850. Conch Icon., pl.25,fig.72. ? = Olivella minuta (Link 1807). [Min.189,p.13;189,p.21].

striolata Sowerby. Thes.Conch. = Ancilla cinnamonea Lamarck/ [Minutes 191, p.21].

stupaeformis Beets 1942. Leidsche Geol. Meded.,p.287. Ancilla.

suavis Yokoyama 1927. Jour.Fac.Sci.Tokyo, i,p.334. Ancilla. Tertiary, Japan.

subaequivittata Sacco 1890. Cat. Pal. Bac. terz.

subampliata Tate 1889. Trans. Roy. Soc., So. Australia.Ancillaria.

subangulata Philippi 1848. Abb. xix, i,pl.1,f.2. = Oliva - spicata (Röding 1798) var. [Min.184, p.26].

subcanalifera d'Orbigny 1852. Prodr. III, 26e et No.872. A.Tortoliva

subcastanea Vanatta 1915. Nautilus, vol.29, p.68. = Oliva peruviana Lamarck 1811.

subglobosa Conrad 1832. Foss. Shells Tert. No.Am.(2),p.25 Ancillaria. Tertiary, Claiborne,Alabama.

subgradata Tate 1887 . Trans.Roy.Soc. So. Australia. Ancillaria.

subhebera Marwick 1926. Trans. & Proc. N .Z. Inst., vol.56, p.323. Ancilla (Baryspira). Tertiary, New Zealand.

submarmorata Sacco 1890. Cat. Pal. Bac. terz.

subobtusispira Sacco 1890. Cat. Pal. Bac. terz. Tortoliva.

subpedroana Loel and Corey 1932. Univ.Cal.Proc.Dept.Geol.,vol. 22, p.240, pl.46, figs.8-9.

subperdita Maury 1924. Mon. Fosseis Terc. Do Brasil, p.179,pl.9, f.10. Olivella.

subplicata Böse. Bol.Inst.Geol.(22),59. Tertiary,Mexico.

subulata Duclos 1835. Monogr. pl.12,fig.7. = Olivancillaria nebulosa (Lamarck).

subulata Lamarck 1811. Ann. du Mus., xvi,p.323. = Olivancillaria lutaria (Röding 1798). [Minutes 183,p.4;191,p.3].

subulata Lamarck 1803. Ann. Mus.Hist.Nat. vol.1(6),p.475.Ancilla.

subviridis Perry 1811. Perry Conch. pl.41,fig.5 n.n. Unrecognizable. [Minutes 191, p.15].

sulcata Thiele 1925. Deutschen Tiefsee Exped., pl.21,fig.11,12. Ancilla. (Chiloptygma) [Minutes 194,p.5].

Sulcobuccinum d'Orbigny 1850. = Pseudoliva Swainson 1840.

summatrana Thiele 1925. Deutschen Tiefsee Exped. pl.21,fig.11. Ancilla. [Minutes 191, p.20].

sundaica Wanner and Hahn 1935. Z. Deut.Geol. Ges.,Berlin, vol.87,pt.4,p.245,pl.xvii,figs.21-23. n. var. Oliva (Strephona) rufula.

suturalis Bellardi 1882 MTPL III, p.217. Tortoliva.

Sylvanocochlea Smith 1904.Error for Sylvanocochlis Melvill 1889, J. Malac/ xi, p.23.

Sylvanocochlea Bartsch 1915. Error for Sylvanocochlis Melvill. Bull. U.S. Natl. Mus.,91,p.35.

Sylvanocochlis Melvill 1899. (Melvill) in Sowerby, J. Conch.,vi, p.149. (subgen.Mariona, non Vaysiere 1879). 1903 Melvill ibid. x, p.325. [Minutes 192,p.3].

sylvia Duclos 1844. Chenu.Ill.Conch.,pl.14,figs.10-13. = Oliva miniacea (Röding 1798) var.

taeniata Link 1807. Bosch. der Nat. Sammlung der Univ. zu Rostock = Oliva ispidula (Linnaeus 1758).

taitensis Lesson 1831. Voy." Coquille+ Zool..II(1),p.401.Oliva.

tamiamiensis Mansfield 1931. Proc. U.S. Natl. Mus., #79, p.4. Olivella. Tertiary, Florida.

tankervillea Swainson 1825. Quar.Journ.Sci., xviii,p.283-Roy.Inst. Gr. Brit. Ancilla. [Minutes 183, p.19].

tankervillea Sowerby 1871. Thes.Conch., p.61. Ancillaria.

tapira Olsson 1932. Bull.Am.Paleo., vol.19,no.68,pp.164,165,pl.16, figs. 11,12. Olivella (Niteoliva). Miocene, Peru.

tasmanica Tenison-Woods 1876. Proc.Roy.Soc.Tasmania. n. var. Ancillaria marginata Lamarck. Ancilla. [Min.183,p.20].

taurolonga Sacco 1890. Cat.Pal. Bac. terz. Baryspira.

tauroturrita Sacco 1904. Cat. Pal. Bac. terz. Ancillina.

tehuelchana J.E. Gray 1850. Fig.Moll.Anim.,IV,72.Olivella.

tehuelchana d'Orbigny 1841. Voy. en Am Mer.38,p.418,pl.59,figs. 7-12. Olivella. [Minutes 189,pp.16,17].

tenebrosa Marrat 1871. Thes.Conch.,, p.13. fig.177. Recent,Borneo. = Oliva tremulina Lamarck 1811. [Minutes 192,p.11].

tenebrosa Wood 1828. Index.Test.,Supp., pl.4,fig.38. = Olivella undatella (Lamarck 1810).]Min.188,pp.9-11].

tenera Conrad 1834. Jour.Acad.Sci.Phil.,vol.vii,p.147,pl.16,fig.5. Ancillaria. Tertiary,Claiborne,Alabama.

tentoria Link 1807. Rostock. = Oliva porphyria (Linnaeus 1758).

tenuis Marrat 1871. Thes.Conch., pl.22,fig.385. = Olivella pulchella (Duclos 1835). [Minutes 193,p.6].

tergina Duclos 1835.Monogr. pl.2,figs.13-16.Olivella. [Minutes 188,pp.20-21.]

terryi Olsson 1956. Proc. ANSD,108,p.193. Olivella. Miocene, Costa Rica.

teschi Koperberg 1930. Jaarb.Mijnw.Ned. Oost.Ind.,p.71. Ancillaria, Ancilla. Tertiary, Timor.

tessellata Lamarck 1811. Ann. du Mus., xvi,320,p.38.Oliva. [Minutes 182,p.15].

testacea Lamarck 1810. Ann. du Mus. xvi,p.324. Olivancillaria (Agaronia). [Minutes 183,p.4;186,pp.8-12;194,pp.2-3].

textilina Lamarck 1811. Ann du Mus.,xvi, 309, n.2. Oliva. [Minutes 181. p.18;192,p.10].

textilis Röding 1798. Mus.Bolt., sp.456. n.n. Porphyria.

tholiculus Marwick 1931. Pal.Bull. N.Z., vol.13, p.130.Baryspira.

thomasi Crosse 1861. Jour.de Conch. ix, p,173,pl.6, figs.3,4. = Oliva paxillus Reeve 1850.

thompsoni Olsson 1956. Proc. ANSP, 107, p.197, pl.14,figs.8,8a. Olivella. [Minutes 189, p.XX 15].

tigridella Duclos 1835.Monogr. pl.3,figs.13,14. = Oliva ispidula (Linnaeus 1758) var.

tigrina Lamarck 1811. Hist.Nat. vii, p.432.[Min.182,p.7;192,p.10].

tigrina (Meuschen) Marrat . Thes.Conch., pl.15,f.-222-224. = Oliva tessellata Lamarck.

tigrinus Meuschen 1787. Mus.Gevers. p.370. Rejected work.

tigris Röding 1798. Mus.Bolt. sp.441. n.n. Porphyria.

timorea Duclos 1835. Monogr. = Oliva julieta Duclos 1835.

timorea Marrat 1871 (non Duclos 1835). Thes.Conch., pl.1,f.4. = Oliva incrassata (Solander).

timorensis Duclos 1835. Monogr. pl,17, figs.11-13. ; Figured in Weinkauff, p.45, pl.40,figs.10,11. = Oliva julieta Duclos.

tindalli Melvill 1898. Mem.Manchester Soc., vol.xlii, pt.4,p.14. Ancilla. Recent- Angrias Bank,

tirangiensis Marwick 1926. Tr.& Pr. N.Z. Inst.,vol.56,p.323. Ancillaria(Baryspira). Tertiary, New Zealand.

tisiphona Duclos 1844. Chenu Ill.Conch.,pl.17,figs. 17,18.
= Oliva reticularis Lamarck.
titea Duclos 1844. Chenu Ill. Conch.,vol.II, p.20. Oliva.
todosina Duclos 1835. Monogr. pl.25,figs.9,10. = Oliva sidelia
Duclos 1835. [Minutes 182,p.8;191,p.6].
togoensis R. Furon 1948. Mem. Mus.Hist.Nat. Paris, p.110,pl.ix,
fig.18. Olivancillaria (Agaronia). Eocene, Togo.
tomlini Oostingh 1935. Mijningenieur 12,p.212,fig.3. Olivella.
Pliocene, Java.
Toroliva Olsson and Harbison 1953. Subgenus of Olivella.
Type, by original designation, Olivella goliath Olsson.
Miocene of Costa Rica.
torosa (Meuschen) Sowerby. Thes.Conch.,pl.2, figs.30,31.
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monotypy, T. texana Conrad. [Min. 194].
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Oligocene, France.
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Travassos. Olivancillaria (Agaronia). [Min.186,p.8].
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Tertiary, Chile.
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1878 Catalog der Gattung Olivella Swainson. Jahrb. Deutsch, Malak, Gesell, v.123-130. [51 Recent species listed].
1880 Catalog der Gattung Ancillaria Lamarck. Jahrb. Deutsch. Malak. Gesell, vii, 101-106. [46 Recent species, 4 subgenera].

MINUTES 197
MARCH 1960
CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

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A Complete Course in Conchological Systematics Or Notes to the Neophyte and Author

Compiled and Arranged by John Q. Burch
(First and worst edition, March,1960)

Every trade has its language. Plumbers, booksellers and, for all I know, prostitutes have terms by which they communicate with each other and their clients. Conchology is no exception. It has a language of an ancient, rich and vari-colored complexion, perfectly understandable to the fraternity though perplexing to the unitiated.

This conchological jargon, by means of which the author describes his shell is as old as history. For centuries conchologists have been employing it, unswerving in their devotion to tradition.

This is as it should be: conchologists are not supposed to be innovators.

This " Guide" is addressed to all non-conformists. It is hoped that by steady application to its pages the most recalcitrant and unmusical of conchologists may learn the right, the only, the traditional tune.

Under no circumstances ever resort to simple English. One mammalogist was expelled for daring to state, " One has a bushy tail, the other does not.". No such crude example is known to conchology.

The Course:

New Genus: Any shell you have not seen before.

New Species: This delightful term may be applied to simply any shell that comes to hand. Ignore the fact that it may have been illustrated in a thousand volumes.

Name: It should be a compound word no one can understand,pronounce or spell. The Latin scholars won't like you, but what the ____? They don't collect shells.

Holotype: If you mention that the only specimen known is the holotype, be sure to add " extremely rare"; people are so stupid.

Röding: A convenient author reference when you are not quite sure. Any unidentifiable 16h century engraving may be attributed to this talented fellow.

New Name: If you refrain from having a new species you lose face if you ever call a shell by a name under which it has been known. There are many tomes in the library with vague references and unrecognizable illustrations. Always select one of these and you are safe.

Rare in this State: Be sure that the printer capitalizes State.

Stained: These should never be identified. Blood,jam,ink, and cocao all look a lot alike.

(con.)

Shell Elongate: Never miss this one especially if it appears just before your measurements of 75 mm. in length x 20 mm. in width.

Shell Small: Always start a description with these words if it is anything under the size of an egg. There are many other meaningless phrases that make excellent stuffing.

Unrecorded in Tryon, Sowerby, or Kiener: This statement not only makes your shell sound rare, but will give the impression that you have a vast reference library.

Faint: All characters identical with another species are always " faint".

Defect: Never fail to add the term " very minor" when this term is used.

Pilsbry: " Not in" are the magic words needed to procede this.

******** ********* End of course.

Foundation Conchylliologique De Belgique,
B elgische Conchologische Vereniging

Secretariat: Mr. F. Beyst.

Avenue de l'Ermitage 15,
Rhode St.Genese,
Belgium.

Excerpts from a personal communication from Mr. F. Beyst, received Jan. 28,1960, follows:
" From April to September,1960, we are organizing a big international conchological exhibition here in Belgium, and more than 75,000 visitors are expected.

We foresee an international congress with the collaboration of prominent professional scientists. Part of the proceedings will be to fix an international nomenclature for shells which have at present a number of different names- i.e. Archetectonica or Solarium ;Aporhhais or Chenopus; Rostellaria or Tibia etc. We are convinced that the decisions of the congress will be advantageous to the conchologists of the world.

We shall also try to project an international assessment in dollars which seems to us to be very necessary, and which will be very useful in purchase or exchange...." End quote.

You will no doubt hear much more of this meeting in Belgium.

My reply, in part, follows- next page.

" Dear Mr. Beyst: You may be assured of my best wishes. The existing confusion in the nomenclature is making systematic conchology ridiculous in the eyes of other sciences. The astronomer would think it quite absurd if the leading authorities had different names for the sun and all of the planets, but that is exactly the present situation in conchology. Let me know in what way I may be

of assistance. It is barely possible that my wife and I may be able to pay you a visit.

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Excerpts from the following personal communication should be of interest. From John A.B. Stewart,c/o Aeradio,Nadi Airport,Fiji. " Dear John: ...Incidentally, we have made quite an important discovery in regard to certain types of Conus which might be of interest to you. All of the Conus with the fine surfaces and delicate patterns are invariably found during the day on small sandy patches on the reef, they dwell in this area under the sand beneath larger size broken pieces of reef. For example say we go after Conus textile on a reef which is new to us, we survey it, find the above type area and start hunting, turning the broken coral over. When ~~x~~ this is done all you see is the sandy surface on which rested the coral lump, but as soon as you run your fingers through the sand you often reveal two or perhaps three cones with fine pattern surfaces. They are not only beneath lumps of coral but buried in the sand. All cones have an epidermis but the fact that these types are sand dwellers keeps their surfaces polished... Once in a blue moon you come across a cross breed. My one and only of this type I obtained a few weeks ago at this place where I am going on Sunday and it was a beauty. It appears to be a cross between an Imperial cone and a Miles only the rolled spire is the loveliest I have seen. It is red,black and white. We picked up over 200 cones that afternoon totalling about 20 species. You can always tell the Cypraea area of the reef by looking for an abundance of Beche-de-Mer and invariably you always encounter moray eels in this area, mostly young one which are harmless though I nearly got caught by a big fellow once. After disturbing him he wasn't sure whether to have a go at me or make for another coral head. Fortunately he decided on the latter, but he gave me a real nasty look for a minute as he snapped his dangerous jaws in the water.

I had a total of 8 Cypraea aurantia which I purchased for 3 pounds each from Fijian villagers. I have seen but one alive and the animal was similar to that of the white ovulum- black colored. Incidentally, a point which I have noticed which might be of importance to you is that there are two different types of Cypraea aurantia which I believe are male and female. One is more of a pink color and proper oval shaped and grows to a larger size, up to about 6 inches, and the other is a magnificent color of orange yellow and is not proper oval shaped. It appears to bulge at both ends. Most of the Cypraea aurantia are found in the one area which is on the south coast of this island, and in areas of live reef. They are nearly always found in the months of August and September which coincides with the end of our " winter" and the time of the " Locas", the Fijian word for a kind of miniature tidal wave we get at that time of the year. Some think that they come up at that time of the year to spawn on the shallow reef and get caught by the tidal waves. This may be correct as most of the shells appear to be spawning during these months. ...". End of Stewart quote.

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The Australian Fisheries Newsletter ,Dec.,1959 carries quite an article about the establishment of the Pacific Oyster, Ostrea gigas, in Australia. The importations have been highly successful.

Another note of passing interest is that the Japanese pearling ships has just left to return to Japan with 340 tons.

An account of the 5000 mile oceanographic survey cruise in the Indian Ocean is interesting.

Dr. Norman T. Mattox

Dr. Mattox, zoologist and professor of biology at the University of Southern California since 1952,died Feb. 1 in the Queen of the Angels Hospital of pneumonia. He was 49 years of age.

Dr. Mattox was president of the Conchological Club of Southern California in 1956, and has been regular in his attendance at our meetings. His death has saddened a host of his friends.

Dr. Mattox was on sabbatical leave from SC for the 1959-1960 school year, completing a research project on the biological productivity of the sea. He was a graduate of Miami University and the University of Illinois. As a result of his research work at the Allan Hancock Foundation for Scientific Research at SC he published many professional articles naming new species of mollusks and crustaceans. He leaves his widow Frances; a daughter, Jo Ellen, and a son, Thomas Jay, at the family home, 3622 Olympiad Drive.

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Mr. E.H. Kuebler

Mr. Kuebler died unexpectedly on Jan. 11. Mr. and Mrs. Kuebler have been among the most enthusiastic members of the Conchological Club. In fact, they were among those who maintained a perfect attendance record throughout the year 1959. We grieve for the loss of another friend.

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Publications Received

The Nautilus- Vol.73, No. 3, Jan.,1960. The papers in this issue are:

Caribbean species of *Truncatella* By Alfredo de la Torre. pp.79-88

Anatomy of *Rhodacmea cahawbensis* Walker, 1917, a river limpet from Alabama by Paul F. Basch. pp 88-95 , 3 pls,

Studies on Mollusk Populations: 4 By R. Stohler. pp.96-103. In this series Dr. Stohler has made a detailed study of the ecology of certain species of *Olivella* from this coast.

New *Phyllonotus* from the Eastern Pacific By A. Myra Keen. pp.103-109, 1 plate, 7 figures. The new species described are *Phyllonotus peratus*, and subspecies *Phyllonotus peratus decoris*, both from west Mexico. This paper is of unusual interest to collectors of west Mexican shells, and most of the members of the Conchological Club have seen the shells, It is another instance of an obvious relationship between the fauna of the Caribbean and the Pacific coast of North America.

A new species of *Calipyrgula* (Hydrobiidae) from the Pleistocene of Texas. By A. Byron Leonard and Tong-yun Ho.

Succinea aurea Lea and *S. pyrites* now. By Leslie Hubricht.

Family names in Pulmonata, 4. By H. Burrington Baker.

Basteria-Vol.23,4,5,pp.49-92, Dec. 31,1959. Contents.

P.H.Fischer: Epaisseur et costulation du test chez certaines Calyptrees.

J.J.C. Tanis: Paalwormsoorten aangetroffen aan de Nederlandse kust; de vondst van *Teredo norvegica* Spengler op Terschelling.

J.J. C. Tanis & A.A.A. de Vries: De mariene schelpen van Terschelling

L.A.W. Venmans: Notes on Land and Freshwater Mollusca of S.E. France-

" Further notes on *Subulina kassaiana* Rochebrune & Germain.

Bernard Verdcourt: Notes on Kenya Land and Freshwater snails.6. The genus *Afropunctum* Haas in Kenya and Uganda.

Nonmarine molluscan remains from recent sediments in Matty Canyon, Pima County,Arizona. By Robert J. Drake. Bulletin of the Southern California Academy of Sciences. Vol.58,Sept.-Dec.,1959.

Journal of the Malacological Society of Australia. No. 3, Nov.,1959.
This is a well printed booklet of 72 pages containing numerous illustrations. It is interesting to see the photographs of some of those whose printed work we have used and admired. At least I have often wondered just what they really look like. In this issue we have a good picture of Miss Joyce Allan and Bernard Cotton. Both pictures remind one of persons we would like to know better. There is also a picture of Dr. R. Tucker Abbott, but he is no stranger to most of us. The papers in this issue follow:
Two new genera of land mollusks (Papuinae) from the central highlands of New Guinea. By W.J. Clench and R.D. Turner.
Changes in shape with time in Australian species of *Aucellina* Pompeckj(Aviculopectinidae). By Rudolf O. Brunnschweiler.
The animal of *Austroginella johnstoni* (Petterd). By Florence V. Murray.
Notes on Littorinid nomenclature. By Donald F. McMichael.
Comments on the Australian Umbraculacean Mollusca. By Robert Burn.
A new genus and species of land snail from North Queensland. By Donald F. McMichael.
They all began with a shell. By A.W.B. Powell,
Radulae of four gastropods from South Australia and New Zealand By Tadashige H abe.
An interpretation of the molluscan genus *Amphidesma* in New Zealand. By Elliot W. Dawson,
Long term changes in intertidal zonation in Tasmania with special reference to the Mollusca. By Eric R. Guiler.

Journal of the Marine Biological Association of the United Kingdom, Vol.38, No.3, Dec.,1959.
T.E. Thompson and D.J. Slinn: On the biology of the opisthobranch *Pleurobranchus membranaceus*.
D.C. Arnold: The reactions of the limpet,*Patella vulgata* L. to certain of the ionic constituents of sea water.

Contribucion al conocimiento de la Fauna Malacologica de la provincia de Tarragona. By C. Altimira. Miscelanea Zoologica, Barcelona, Nov.,1959.

Occasional Papers on Mollusks- Dept. of Mollusks, Museum of Comparative Zoology,Harvard University. Oct. & Nov. 1959.
Vol.2, No.24- Calvin Goodrich; a Bibliography and Catalogue of his species. By Joseph Rosewater.
Vol.2, No.25- A Comparison of *Cyclopecten nanus* Verrill and Bush and *Placopecten magellanicus* (Gmelin). By Arthur S. Merrill.

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A Survey of the Littoral Gastropoda of the Netherlands Antilles and Other Caribbean Islands. by H.E. Coomans. Reprinted from Studies Fauna Curacao 8, pp 42-111, pl.s I-XVI,1958.

I have found this booklet well written and of genuine value in a study of the shells of the Caribbean. The photographic plates are excellent.

A few copies are available from John Q. Burch @ $3.50.

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Nuova revisione delle conchiglie marine di Sicilia - Memoria XI- Catania- by Dott. Ing. Ottavio Priolo, Folio, pp.333-373. This issue covers some interesting families, Janthinidae,Aclididae, Melanellidae,Pyramidellidae, ** This work is excellent with extended synonomies. We certainly need a comprehensive work on the marine fauna of the Mediterranean.

MINUTES 198

APRIL 1960

CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

Editor-John Q. Burch,
4206 Halldale Ave.,
Los Angeles 62,Calif.

The June issue of the Minutes of the Conchological Club of Southern California with John Q. Burch as editor will complete exactly twenty years.

I took over from Jim Marsh who published a journal of the club for many years. He called his publication " The Notes of the Conchological Club".

Two complete decades of JQB indicates that it is time that he should become " editor emeritus". I recall seeing a definition of the last word as taken from the Latin; " emer" meaning "out" and " itus" meaning " ought to be".
With Minutes No.200 I propose to bring this journal to an end.

I have enjoyed this fifth of a century as editor, and to the host of loyal friends who have helped me make this paper something of a contribution, permit me to condense all of my thoughts in three words- I thank you.

To my many exchange correspondents: I will appreciate being retained on your list, and will from time to time return publications of my own. New publications will be reviewed in our sale catalogues which will be issued from time to time.

The concluding issues of the Minutes will be devoted to indices. Those who have been binding them should wait for No. 200, a final index of species.

Minutes of the Conchological Club of Southern California

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* Note: Unless indicated otherwise, all keys cited are from the notebook of the late A.M. Strong. They were reproduced with his permission prior to his death.

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We wish to give our sincere thanks to Allyn G. Smith,California Academy of Sciences, who prepared the above index.

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MAY 1960

CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

Editor-John Q. Burch
4206 Halldale Ave.,
Los Angeles 62,Calif.

Author Index of Articles,Notes and Miscellaneous Data Published in the Minutes of the Conchological Club of Southern California. Numbers 151-200 Inclusive

by Allyn G. Smith

Author Index of Articles,Notes, and Miscellaneous Data

Published in the Minutes of the Conchological Club of Southern California

Numbers 151-200, Inclusive *

by

Allyn G. Smith

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John Q. Burch-Editor 4206 Halldale Ave., Los Angeles 62

This is the final issue of this publication. We wish to thank our many friends with the hope that we will continue to hear from you from time to time. We expect to have more time to travel and to study our shells. John Q. and Rose Burch

The following indices have been published, and it is hoped that the index contained in this issue may be useful.

1. Index to species covering Min. 1-65,published in Dec.,1946.
2. Index of articles,notes and miscellaneous data covering Min. 1-150. Published in Min.169.
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Dr. Paul Bartsch

Dr. Paul Bartsch died on April 24 at the age of 89. Dr. Bartsch succeeded Dr. William H. Dall as curator of mollusks at the U.S. National Museum,and completed a distinguished career in 1941. but remained as consultant to the museum until his death. It is well known that exceptional ability is required to step into the shoes of a strong man, and Dr. Dall was a giant in his field. Nevertheless, Dr. Bartsch immediately became a giant in his own right. Few men in the history of science have published anything approaching the great volume of research made by Dr. Bartsch. It is certain that bibliographies of his fine work will be published in other journals, and it seems fitting here to simply mention a few of the personal and kindly traits of Dr. Bartsch as a man and as a friend.

It is not generally known that Dr. Bartsch was a renouned ornithologist. In fact, birds were his first great interest.

We often recall with the greatest pleasure the day we were his guests at the beautiful estate at Lebanon,Virginia. The many and amazing bird feeders attracted varied birds of seeiningly countless species. Numerous bird lovers were about and their enthusiasm at the sight of a rare wild bird was contagious.

Lebanon was also definitely a botanical garden. All of the ferns native to the region were there with a host of other interesting plants and trees. Dr. Bartsch wasя a true nature lover in all forms of life. The preserve is a home for an assortment of animals including foxes,eagles, geese etc.

Lebanon is 458 acres of beautiful land overlooking the Potomac. The stately home was built four years before Mt. Vernon. When Dr. Bartsch bought this estate he turned it into a wildlife sanctuary. H is willingness to share knowledge drawn from a lifetime of scientific study with children and experts alike drew more than 2,000 persons a year to his beautiful home and the lush fields and woodlands that surround it.

His death came at a time of the year when the trees and plants he loved- Oaks, tulip poplars, ash,azaleas,ferns , are blossoming and leaving in the ravines of his beautiful home.

The world has lost a great scientist, and we have lost a very dear friend. We extend sympathy to Mrs. Paul Bartsch.

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THE VELIGER

With the closing of the " Minutes" a valuable service to shell collectors throughout the world came to an end.

It will be the endeavor of " The Veliger" to partly offset the gap which will be left. This quarterly will carry,as available, such articles of lasting scientific value as have appeared over the years in " The Minutes". New books and the problems of malacology and conchology will be noted here.

Subscriptions to " The Veliger" are available for volume 3 at $2.50 in the U.S.A., and at $3.00 for foreign countries,through Mrs. Phoebe Balch, Treasurer of the Northern California Malacozoological Club,975 Hough Ave., Lafayette,California. The first number of volume 3 will be published on July 1,1960.

R.Stohler, Editor
Department of Zoology,
University of California
Berkeley 4,California.

Genus Olivella Swainson, 1831. Type (by Sub. Des. Dall, 1909) Oliva purpurata Swainson = Olivella dama (Mawe, 1828).

Olivella	dama (Mawe, 1828) La Paz, Mexico TYPE species.	.50
"	baetica (Marrat in Sowerby, 1871) California to Alaska	.35
"	biplicata (Sowerby) Crescent City, Calif. to Baja Calif.	.35
"	columellaris (Wood) West Mexico to Panama	.35
"	floralia (Duclos, 1835) West Indies	.35
"	jaspidea (Gmelin) West Indies Type of Jaspidella Olsson 1956	.35
"	lepta (Duclos, 1835) (Syn. Olivella fulgurata Adams and Reeve, 1848) Japan	.35
"	nivea (Gmelin, 1790) West Indies	.35
"	pedroana (Conrad, 1856) Morro Bay, West Coast of Calif.	.35
"	undatella (Lamarck, 1811) West Mexico Type of subgenus Strephonella Dall, 1909, and said to be of the genus Oliva by radular characters.	.35
"	volutella (Lamarck) West Mexico	.35
"	zanceta (Duclos) West Mexico to Panama Type of subgenus Zanoetella.	.35

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Sorry but our stock of Oldroyd: Marine Shells of the West Coast has been sold out, and as far as we know, the set is now permanently out of print. We purchased the remainder several years ago.

******

Directory of Conchologists- 1960 edition. $2.50
It is interesting that our hobby or avocation has increased to such an extent. Those who exchange shells with others world wide must have initiated a great many new members, because the demand for this year's directory has far surpassed any former year.

****

John Q. Burch,
4206 Halldale Ave.,
Los Angeles 62, Calif.

Oliva sayana Ravenel Florida, West Indies..Large adult shells .50
"7 spicata (Roding,1798) All following varieties .50
var. spicata s.s. Gulf of Calif.,Panama. This is the large 2" form often erroneously labelled fuscata Marrat, or melchersi Menke.
var. venulata Lamarck La Paz, Mexico
var. cumingii Reeve. " " Gulf of Calif.
var. pindarina Duclos " " "
var. subangulata Philippi. Punta Penasco,Mexico "
var. polpasta Duclos. Balboa,Panama;West Mexico.. This is considered by many authorities as a separate species
var. violacea Marrat. Color form with violet columella. No systematic value.
" splendidula Sowerby Perlas Islands, Panama-dredged 1.00
" tessellata Lamarck. Solomon Islands,Philippines etc. .50
" tigrina Lamarck Mozambique,Zanzibar etc. E. Africa .50
var. tigrina s.s. dark brown bands-largely dark
var. fallax Johnson. Solid black. This form is seen in many collections labelled O. oliva (L.)or O. maura Lam. but this is simple error. The black Oliva oliva (L.) is easily separable.
The most typical form mentioned first lacks bands and has only the close dots of bluish gray. Approx. 2"
" tremulina Lamatck . Ceylon, Philippines .. 1.00
" tricolor Lamarck Philippines, Japan .. .75

Genus Olivancillaria d'Orbigny, 1843 Type species,Oliva brasiliensis (Chemnitz) = Oliva brasiliana Lamarck = Porphyria urceus Roding= Olivancillaria urceus (Roding,1798).

Olivancillaria urceus (Roding,1798) Type species of the genus.
Montevideo,Uruguay;Argentina;Brazil.. 1.00
" auricularia (Lamarck) Brazil, numerous localities. There is a remarkable variation in specimens from different localities/ 1.00
" contortuplicata (Reeve) Uruguay, Brazil 1.00
" deshayesiana (Duclos) Uruguay 1.00
" gibbosa (Born) Bombay, India Typical s.s. 1.00
var. fulgurans Melvill " 1.00
Subgenus Agaronia Gray,1839 Type (by monotypy) O. hiatula Gmelin.

Olivancillaria (Agaronia) testacea (Lamarck) Gulf of Calif. Panama .. .50

Genus Ancilla Lamarck,1799 Type (by monotypy) Ancilla cinnamonea Lamarck.

Ancilla fasciata (Reeve) Jeffrey's Bay, So.Africa .50
" reevei (Smith) " " Approx. ½" .50
" australis (Sowerby) New Zealand .50
" var. edithae Pritchard & Gatliff So. Australia .50
(In the subgenus Baryspira P. Fischer,1883
" obtusa (Sowerby,1830) Jeffrey's Bay, So. Africa .50
" tankervillei Sowerby,1871 Venezuela 1.00
" apicalis Is Taki,1955 Tosa,Japan in 200 fathoms 1.50
" urosima Is. Taki,1955 " " .75
" albicallosa (Lischke) Kii, Japan One lot exceptionally fine-best I have seen. Approx. 2½" 1.50
Same species- shells about 1½"-Sagami,Japan in 60 fms. 1.00

Family Olividae

Oliva annulata (Gmelin) Philippines,Japan,Mauritius..
Always attractive shells- about 1½" .50
" australia Duclos,1835, var. caldania Duclos Broome, Western Australia Approx ½" .50
" australia australis Duclos 1835 Mission Beach,Austr. .50
" bulbiformis Duclos,1835 Philippines .50
" bulbosa (Roding,1798) s.s. undulating longitudinal stripes of brown. Mozambique,E. Africa .50
" " var. inflata Lam. With only small bluish gray spots .50
" var. bicingulata Lam. With two revolving dark bands .50
" var. fabagina Lam. When the bands fuse and produce a black shell .50
" var. undata Lam. Richly dotted and lightning marked .50
*** The above are color forms of the same species.1½"
" carneola (Gmelin) Philippines, Japan ... .50
" cryptospira Ford,1891 Philippines,Ceylon,W.Australia, Japan Beautiful shells Approx.2" 1.00
(Syn.: O. ornata Marrat; O. cylindrica of Marrat, Sowerby,Cossmann (not Borson..)
var. cryptospira s.s. A yellowish orange 1.00
var. fordi Johnson A solid dark chocolate 1.00
var. ornata -A light colored form with broken bands. The name is properly not available as a valid subspecies, but I consider it a color form only, and it has been known under this name.
" duclosi Reeve Tahiti .75
" episcopalis Lamarck Bougainville, Solomon Islands
Attractive light shells with purple aperture. .75
" incrassata (Solander,1786) La Paz,Guaymas,Salina Cruz, Tres Marias Islands,Panama Large 2½" $1.25 2" .75
" ispidula (Linne') Indo-Pacific,many localities,Japan .50
There are countless color forms and pattern variants.Many have been given names. If desired I will select var. tigridella taeniata etc., but in my opinion it is one variable species with the same variants appearing in many colonies.
" miniacea (Roding,1798) (Syn.: O. erythrostoma(Meuschen) Philippines, Solomon Islands,Guam,Japan... .75¢
There are many color variants-
var. miniacea s.s. Wavy longitudinal lines, two transverse bands,one at the top, one near the center.
var. efasciata Dautzenberg,1927. var without bands.
var. johnsoni Higgins. Ornamented with large angular black blotches.
var. marrati Johnson. Solid dark brown to black.
var. saturata Dautzenberg,1927. Longitudinal lines darker, bands more colored.
var. sylvia Duclos. Orange yellow, irregular lines.
*** All of the above have the orange aperture-beautiful shells
" mustellina Lamarck. Japan, Hong Kong. 1½" purple aperture .50
"7 peruviana Lamarck . Santiago, Chile .Many color patterns.1.00
" reticularis Lamarck. Bahamma Islands etc. .50
" " var. olorinella Duclos. White or yellow-albinos .50
" sanguinolenta Lamarck. Philippines, Solomon Islands and Indo-Pacific localities in general. .75
" " var. evania Duclos A lighter colored form with distinct pattern. Beautiful shells. .75

Rissoacea

Family Rissoidae There are such a large number of both species and genera involved that I question whether or not there is sufficient interest in them to warrant a very extended discussion. I will mention but a very few although I have a great many.

Genus Barleeia Clark ,1855 Type (by monotypy) Barleeia rubra (Montagu)

Barleeia oldroydi Bartsch,1920	Cayucos,California	.50
Barleeia subtenuis Bartsch,1920	Estero,Todos Santos Bay,Mex.	.50

It should be mentioned that all species of this group are small, largely semimicroscopic, and only of possible interest to students interested in such material.

Family Hydrobiidae
Genus Hydrobia Hartmann,1821

Hydrobia jenkensi Smith	England,Sweden--Europe	.50
" kutschigi Kuster	Sardona,Italy	.50
" ventrosa Mont.	Black Sea area,Roumania	.50
" ulvae (Pennant)	England,Sweden etc.	.50

** Might mention that these are of passing interest to some. H. ulvae is the type species of Sabinea Sowerby 1842- considered a subgenus here.

Genus Truncatella Risso,1826 Type: T. subcylindrica (Linne') Many authors place this in a separate family,Truncatellidae,and this seems more logical to me than countless other splits. A character of this genus is that the nuclear whorls are slender, and always cast off in the adult.

Truncatella caribaensis Sowerby	Florida	.50
" stimpsoni Stearns	Malaga Cove,Los Angeles Co.,Cal.	.50
" vallida Pfr.	Philippines;New Caledonia..	.50

****

Family Cerithiidae
Subfamily Litiopinae

Genus Diala A. Adams,1861

Diala marmorea (Carpenter,1864)	Dredged off So. Coronado Id., Mexico.	.50

Genus Alaba H. and A. Adams

Alaba jeanettae Bartsch	Espiritu Santo Id.,Gulf of Calif.	.50

****

Bulla vernicosa (Gould,1859) (Syn.: Bulla ovula Sowerby,
Good specimens from Japan, Philippines etc. .50

" punctulata A. Adams in Sowerby,1850 (Syn. B. panamensis Philippi,1849; B. adamsi Menke,1850; B. aspersa A. Adams,1850; not Gray,1843; B. quoyana Dall,1919),
Specimens from Mazatlan,Sinaloa,Mexico;Panama Bay;Ecuador.. .50
This specific name has been the source of no end of confusion also due to the fact that the name has been applied to one of the common forms of Australia, the New South Wales shells. Jpyce Allan and others list their species as B. punctulata . However, Bulla punctulata A. Adams,1850 was described from Panama and is certainly applicable to the eastern Pacific species. Iredale in Australian Zoologist, vol.8,pt.4,p.259, 1937, gave a diagnosis of the names for the Sydney shells. According to Iredale, two names are available, B/ magdelus (ex Lister) Angus, and B. ovulum (Gould MS) Angus/ I have no intention here of attempting to select a name for the Australians, but it does seem to my eyes that some of them, no doubt the B. ovulum mentioned by Iredale must be very close if not identical with Bulla vernicosa (Gould,1859). The other species, the one confused with punctulata Adams seems to me to be easily separable from shells of the eastern Pacific. I have plenty of them but simply do not know what the correct assignment may be other than that it is not punctulata A. Adams. Pilsbry described a species B. angasi in the Man.Conch..1895 said to come from Sydney. Iredale questions the locality, but in any event the other names are much older. The species of Bulla from Western Australia is said to be referable to B. australis Quoy and Gaimard.

****

A Few Miscellaneous Items to Fill the Page

Photinula taeniata Wood Puerto Gallegos,southern Patagonia, Argentina. This is in the Calliostominae,but is generally accepted as a distinct genus. Attractive small shells about ½ inch Diam. .50

Terebra salleana Deshayes Corpus Christi,Texas. I wish to thank Mrs. Fred Speers of Texas for calling my attention to the fact that the specimens I have distributed as a variant of Terebra cinerea Born from Corpus Christi,Texas should have been assigned to T.salleana Deshayes (fide R.T. Abbott). They are certainly separable from typical cinerea , but there seem to be two forms involved. Perhaps ultimately they may be grouped as subspecies. .50¢

Cerithidea valida (C.B. Adams) Panama Bay .50
Cantharus pastinacea (Reeve,1846) " " .75
Cantharus vibex (Brod.,1833) " " .75
Cymatium (Turritriton) gibbosum (Brod.,1833) Panama 1.00
This is the type of Turritriton Dall,1904.
Crepidula aculeata (Gmelin) Mar del Plata, Argentina .50
Urosalpinx rushii Pilsbry Montevideo,Uruguay .50
Conus glaucus Linne' Quezon,Philippines. A few fine $5.00
Charonia variegata (Lamarck,1816) Vera Cruz,Mexico $5.00
Nice specimens about 5 inches or more. (Syn.: C.nobilis(Con.)
Cypraea zebra (Linne') Vera Cruz, Mexico $3.00
Nicce large specimens over 3 inches.

Family Bullidae
Genus Bulla Linnaeus,1758 (Syn.: Bullus Montfort,1810;Bullites Schlotheim,1813;Bullaria Auct.; Quibulla Iredale,1929;Vesica Swainson,1840)
Type (Opinion 196): B. ampulla Linnaeus

One of the most difficult tasks for the student of shells is to distinguish minor differences in a long series of very closely related species. This is the problem in the genus Bulla. Quibulla Iredale,1929. This generic name is mentioned again because of the fact that it seems to be in general use by some authors in Australia for species including B. ampulla Linnaeus regardless of the fact that this species is now determined the type species of the genus Bulla Linnaeus,1758 by (Opinion 196) of the International Commission of Zoological Nomenclature. It is definitely in the synonymy of Bulla Linnaeus.

Bulla ampulla Linnaeus,1758 (Syn.: Bulla columellaris Menke)
There are numerous varieties of this well known Indo-Pacific species. Among them may be mentioned bifasciata Menke and trifasciata. In my experience these forms are relatively rare and the sole distinction is that one has two bands around the body whorl, the other three. Typical shells are smooth and mottled. Variants of this species have been given names seemingly without end.
Good specimens from Japan,Ceylon,Mozambique,Western Australia, Queensland, Fiji... TYPE of the genus Bulla .75¢

" gouldiana Pilsbry,1895 (Syn: B. nebulosa A. Adams,1850, ex Gould MS non Schroter,1804) Southern California to Ecuador. Specimens from Newport Bay, Calif.;Baja California;Gulf of California; Panama .50

" occidentalis A. Adams Florida,Bermuda,West Indies to Venezuela .50

" quoyi Gray,1843 New Zealand, numerous localities .50
This specific name has caused some confusion because of the use of the name B. quoyi A. Adams,1850, not Gray ,1843, for the species we now refer to Bulla punctulata Adams in Sowerby, 1850. The species seems to be a form restricted to New Zealand.

"/ striata Bruguiere Florida,Puerto Rico,Bahammas etc. also Mediterranean, Malta, Algeria etc. .50
There is an extensive synonymy for this species. Specimens are frequently seen from Europe labelled B. columnae Della Chiaje. There are some rather interesting variants or races, and it may be that some of these names from the synonymy may be reasonably assigned to some of these as subspecies. Some specimens from the West Indies labelled Bulla amygdalla Brug. and placed in the synonymy of the above by most authors leave me a a little puzzled . They seem more entitled to a name than a great many others. I am also a little puzzled about whether or not I may have the form Bulla roperiana Pilsbry in with some of these sets of B. striata from the Mediterranean, but I am unable to separate them from the figures in the Manual of Conchology, vol.15 in which the species was described.

" tenuissima Sowerby,1868 Australia, N.S.W. & So.Australia .75
(Syn. Bulla botanica Hedley) . This is the type species of Quibula Iredale,1929, but I see no particular advantage in splitting the genus for this distinct species. In my own collection I have placed Quibula in the synonymy of Bulla. However,for those who collect types, here is Quibula whether you prefer botanica or tenuissima.

Genus Cylichna Loven,1846 (Syn.. Bullina Risso,1826, non Ferrusac,1822;Cylindrella Swainson,1840 (p.135,326) non Swainson,1840 (p.311) non L. Pfeiffer,1840;Cyclina Gray,1857, non Deshayes, 1850; Bulinella Newton,1891).
Type (by Sub Des. Hermannsen,1852), C. cylindracea (Pennant) (Bulla).
Subgenera: ? Adamnestia Iredale,1936 Type (by Orig. Des.)peroniana Iredale. To my eyes these shells are so close to Cylichna s.s. that I am compelled to question the value of this division. It is even a bit difficult for me to separate the type from the arachis Quoy and Gaimard of Western Australia. It may be of passing interest that Joyce Allan in Australian Shells places these shells as follows: Cylichnella (Amnestia) peroniana Iredale. This assignment is even more puzzling to me with what I assume to be the type species of Cylichnella Gabb before me. I am certainly in need of further instruction on these. Cylichnella is separable from Cylichna in possessing two columellar folds. The shells before me,from Australia lack this character or they are faint indeed. The recent Californian species have been placed by several authors in the genus Cylichnella Gabb,1872 which has the two columellar folds. The species of this coast have but one and therefore seem to be properly placed in Cylichna.

Cylichna arachis Quoy and Gaimard,1833 Albany,Broome etc.
Western Australia About 1 inch 25 mm .50
" attonsa (Carpenter,,1864) Dredged off Redondo Beach,Calif.
in 75 fathoms. 8 mm .50
" diegensis (Dall,1919) Dredged off Catalina Island,Calif.
in 50 fathoms. About 8 mm. .50

Genus Atys Montfort,1810 Type: A. cymbulus Montfort = naucum (Linnaeus) (Bulla)

Atys (Atys) naucum (Linne') Philippines; No. Australia;
Moluccas ... TYPE of Atys s.s. $1.00

Subgenus Aliculastrum Pilsbry,1896. (Syn.: Aulicula Ehrenberg, 1831, non Eichwald,1830) Auliculastrum is given generic value by Australian authors. Type: Atys cylindrica (Helbling).

Atys (Auliculastrum) cylindrica (Helbling) TYPE species of the subgenus. Specimens from Japan;Samoa;W.Australia;Fiji; So. Australia;Philippines. .50

Family Hydatinidae
Genus Hydatina Schumacher,1817 Type: H. filosa Schumacher= physis (Linnaeus).
Subgenera: Amplustrum Schumacher,1817 (Syn. Amplustra Swainson, 1840). Type (by monotypy) H. (A.) fasciata (Schumacher) = amplustre (Linnaeus)
Micromelo Pilsbry,1895 Type : M. undatus (Bruguiere).

Hydatina vesicaria (Solander) (Humphrey) Lake Worth,Florida
These are rather beautiful shells. $2.00
These shells are so close to the type species, H. physis that it seems to me,the most valuable reference work to separate them is the atlas.
" albocincta (Hoeven) Japan. Beautiful banded shells $1.00
" amplustre (Linnaeus) Hawaii $1.00
Colorful little shells-under 1 inch. Type of Amplustrum.

Subgenus *Rictaxis* Dall,1871 Type (by monotypy) *Tornatella punctocoelata* Carpenter.

Acteon (*Rictaxis*) *punctocoelata* (Carpenter,1864) Southern Calif. some littoral, others dredged in moderate depths 10 to 20 fms.; also off Monterey, Calif. Type of *Rictaxis* Dall. .50

Genus Pupa Roeding,1798 Type (by Sub. Des. Suter,1913): *P. grisebia* Roeding = *P. solidula* (Linnaeus) (Voluta). (Syn.: *Solidula* Fischer von Waldheim; Solidulus Ferrusac;*Buccinulus* H. & A. Adams,1854) It may be mentioned that Allan in Australia and others continue to use the generic name *Solidula*. They may be correct, but I have them under *Pupa* .

Pupa solidula (Linne') TYPE of the genus *Pupa*.	Zamboanga,Philippines;Japan:..	.75
" *sulcata* (Gmelin)	Japan	.50
" *suturalis* (A. Adams)	Broome, Western Australia	.50

Family Akeridae
Genus *Haminoea* Turton & Kingston in Carrington,1830. Type (by Sub. Des. Gray,1847), *H. hydatis* (Linnaeus) (Bulla)

It is of interest that the authors of the fauna of the Eastern Pacific have consistently placed this genus with *Akera* in the family Akeridae. Dr. Zilch in his continuation of Wenz,1959, has placed *Haminoea* with *Atys* in the family Atyidae, and has placed *Akera* O.F. Muller 1776, and family Akeridae in a very diff rent systematic position. He has Akeridae in the order Aplysiacea immediately with the family Aplysiidae. We have been placing *Atys* in the family Scaphandridae. Dr. Zilch gives us a much different concept of systematic relationships. However, in his treatment of the family Scaphandridae it should be mentioned that other than the *Atys* location, his generic arrangement is in accord with our usage. Kuroda and Habe place *Haminoea* under Atyidae. And it may be mentioned that there is a variation in the spelling of the word. Many spell it Haminöea while we have been using the *o* and spelling it *Haminoea*.

Haminoea hydatis (Linne')	Melilla, Morocco. TYPE of genus.	$1.00
" *aperta oahuensis*	Kaneohe Bay,Oahu, Hawaii	.50
" *vesicula* Gould	San Pedro ...California	.50
" *virescens* Sowerby	Point Mugu, California	.50
" *tenera* A. Adams	Ceylon	.50
" *zelandiae* Gray	New Zealand	.50

Family Philinidae
Genus *Philine* Ascanius,1772 Type : *P. aperta* (Linnaeus)

Philine aperta (Linne') Europe- England,Mediterranean 1.00
TYPE species of *Philine* Ascanius

Family Scaphandridae- *Atys* Montfort,1810; *Brocktonia* Iredale,1915; *Cylichna* Loven,1846; *Scaphander* Montfort,1810

Kuroda and Habe,1952 have accepted *Tricla* Retzius,1788 and the family name Triclidae placing *Scaphander* and Scaphandridae in the synomymy.

Genus *Scaphander* Montfort,1810 Type: *S. lignarius* (Linne')(Bulla)
Scaphander(*Scaphander*) *lignarius* (Linne') Mediterranean $1.00
Type species.

Order Opisthobranchiata

Acteocinidae
Acteonidae
Aglaijidae
Akeridae
Bullidae
Diaphanidae
Gastropteridae
Philinidae
Scaphandridae

The systematic arrangement of this group is a matter of rather amazing lack of agreement among the various authors. This will become apparent in my discussion of the groups. I am disposed to appreciate the excellent work of J.G. Hidalgo who listed all genera alphabetically. The ABCs may be out of date in the modern school curriculum, but most of us can manage that arrangement, Genera and families vary from author to author, Dr. Zilch in his continuation of Wenz, Gastropoda, employs the family Retusidae as did Thiele. We have followed many others in placing the genus *Retusa* Brown, 1827 in the family Acteocinidae. Dr. Zilch follows Thiele et al in placing *Acteocina* Gray, 1847 in the family Scaphandridae, Familiar genera are found under different families and systematically far apart depending upon which author you have in hand.

This is not a group to appeal to the beginning collector. Many of them are small, and the distinctions are often close. I will offer a selected few species of this rather large group, and list them as we have them arranged in our own collection.

Family Acteocinidae--*Acteocina* Gray, 1847; *Coleophysis* Fischer, 1883; *Retusa* Brown, 1827; *Sulcoretusa* Burch, 1945; *Volvulella* Newton, 1891.

Genus *Acteocina* Gray, 1847. Type: *A. wetherelli* (Lea) (*Actaeon*) (Syn.: Tornatina A. Adams, 1850; *Didontoglossa* Annandale, 1924; ..)

Acteocina *culcitella* (Gould, 1852) Dredged off Monterey, Calif.; Redondo Beach, Calif.; Todos Santos Bay, Baja Calif., Mexico. Bathymetric range 15 to 25 fathoms. .50¢
" *eximia* (Baird, 1863) San Juan Islands, Wash. .50
" *inculta* (Gould, 1856) Mugu Bay, Ventura Co., Calif. .50
" *intermedia* Willett, 1928. Dredged off Catalina Island, Calif. in 30 fathoms. .50

Genus *Coleophysis* Fischer, 1883. Type (by monotypy) *Utriculus trunculus* (Bruguiere).

Coleophysis *harpa* (Dall, 1871). San Juan Islands, Wash.; Redondo Beach, Calif.; (in 50 to 75 fathoms; Monterey, Calif. in 25 fms. .50¢

Genus *Volvulella* Newton, 1891 Type (by Sub. Des. Bucquoy, Dautz., & Dollfus, 1886), *Volvula* *rostrata* A. Adams.

Volvulella *californica* Dall, 1919 Dredged off Redondo Beach in 75 fathoms. .75¢

Family Acteonidae -- *Acteon* Montfort, 1810; *Microglyphis* Dall, 1902. A simple key to genera of this group in the west coast fauna is,

1. Columella with one fold *Acteon*
2. " " no fold *Rictaxis*
3. " " two folds *Microglyphis*

Genus *Acteon* Montfort, 1810 Type (by monotypy) *Bulla tornatilis* (Linnaeus) Syn.: *Tornatella* Lamarck, 1816; *Actaeon* A. Adams, 1854

Genus Discotectonica Marwick,1931

Ref. Wenz, Gastropoda, 1938. I am usually very reluctant to accept a new genus when it seems possible to utilize a subgenus,but these shells are so very distinct that I feel obliged to accept. Shell characters make it impossible for me to work them with typical Archetectonica.

Discotectonica acutissima (Sowerby III,1914) Ann. & Mag. Nat.Hist., vol.14,ser.8,p.36,pl.2,fig.9. Sowerby added to his diagnosis,".. it may rank as the type of a new subgenus.".
Specimens from Kii, Japan, deep water, Approx. 1 1/2" $2.50

Genus Torinia Gray,1842

Type: T. cylindracea (Chemnitz)
After typing my comments re Torinia and Heliacus above, I think that I have before me the type species of both, and I am now inclined to believe that Kuroda and Habe,1952 were correct in accepting both as distinct genera. In any event, we have a host of generic names in general use that are based on characters insignificant by comparison. A number of subgenera have been described which will not be discussed here.

Torinia infundibuliforme (Gmelin) Ceylon 1/2" $1.00
This species may be the crenella Linne'. It is so accepted by Kuroda and Habe, but Gmelin's name has been in general use for many generations. I am assuming that this is the type form of Torinia.

Genus Heliacus Orbigny,1842

Type: Solarium heberti Deshayes . As the name indicates, this is indeed a variable form.
Heliacus variegatus (Gmelin) Western Australia;Philippines; Hawaii; and generally throughout the Indo-Pacific. .75¢
A brief note on another generic name. Torinista Iredale,1936 Type; T. popula Iredale. This name remains a puzzle to me, and advice will be appreciated. It is accepted as a genus by authors in Australia. Joyce Allan in Australian Shells accepts it and places the well known species variegatus (Gmelin) in it. Kuroda and Habe list a species Torinista elegantula (Yokoyama). However, I must admit that if variegatus is removed from Heliacus I may as well remove all of them. I have seen neither the type of Torinista nor the species from Japan referred to this name.

Heliacus bicanaliculatus (Valenciennes,1832) West Mexico .75

Genus Philippia Gray,1847 Type:P.lutea (Lam.)

Philippia lutea (Lamarck) Port Jackson, NSW,Australia
TYPE species of Philippia 1/3" 1.00

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Miscellaneous Items

Harpa costata (Linne') (Syn.: Harpa imperialis Chemnitz...)
Mauritius, Indian Ocean. Really fine specimens of this beautiful species have become increasingly rare. We have a single superb fresh specimen. $50.00

****

Trophonopsis lasius (Dall,1919) A fine fresh lot of this species just arrived from Port Dick,Kenai Penninsula, Alaska. $1.00
Natica (Tectonatica) aleutica Dall,1919. Good fresh specimens with opercula also from Port Dick,Kenai Penninsula,Alaska .50¢
Eupleura nitida (Brod.,1833) Panama Bay .50¢

Genus Archetectonica Röding,1798

The following are some of the available specimens.

Archetectonica perspectiva (Linne') TYPE of the genus. .50 to.75
This is a very variable species with the result that the synonymy is rather extensive. It is typical of the species to have the cingulum of castaneous dots at the proximal side of the area basalis media. However, specimens vary in height and in the grade of convexity of the base. The sculpture varies greatly in the different development of the radial striation of the filum in the sulcus peripheralis. There are also variants in the ground color and in that of the cingula. A discussion of all variants would be too voluminous to attempt here. You may see specimens labelled A. formosa (Hinds) which is simply an elevated form of perspectiva , or A. australis (Philippi) with dark apex, and cingulum ultimum spotted with yellow. There are numerous other variants described and named that I have been unable to find in my material. A species that must be related is A. grandiosa dredged NSW,Australia. I have never seen this species but it is said to differ by the base being covered by radiating rows of chestnut blotches which are absent from the typical. I have puzzled with a few from the Philippines showing the same character.

Specimens are available from the Philippines; Japan;Solomon Islands;Fiji;queensland,Australia; ... .50 to .75¢

" trochlearis (Hinds) Kii, Japan. Good large specimens 1 3/4" good color $2.00
These shells are attractive and interesting. They may even be confusing in small specimens. Many authors have placed this in the synonymy of A. perspectiva (Linne'), and others have treated it as a variety. The principal difference between A. trochlearis and A. perspectiva is in the vitta infra-suturalis which in the latter is of a solid brown color, while the former bears a series of square brown spots.

A. trochlearis (Hinds) from Mozambique,Portuguese East Africa. I have an interesting series before me from this locality. The tendency to intergrade with A. perspectiva is apparent. Of 8 specimens in one set, 1 must be examined very closely to note breaks in the line and these are faint, 6 are typical trochlearis, and the last one is very obviously A. perspectiva with the solid unbroken brown line. Clean bright shells 1 3/4 to 2" $1.50
I also have A. trochlearis from the Philippines, somewhat smaller, but seem to be typical in markings.

" maxima (Philippi) Japan. $2.00. These are rather beautiful shells, 2 inches or more in diameter, and as I mentioned above rather a good study species. Note- In the original description Philippi mentions that the cingulum infra-suturale is immaculate. This is generally true but an occasional specimen will show indications of some brown dots. Specimens from Hong Kong are somewhat smaller than those from Japan, approx. 1 1/2" or a little more, but seem to be consistently A. maxima. $1.00

" nobilis Röding (syn. granulatum Lamarck ;granosum Val. ..
It is surprising to list a species that is abundant throughout the West Indies-Caribbean , and also along the Pacific Coast from the Gulf of Calif. south to Peru. There seem to be no consistent characters to distinguish them. We offer specimens from Guaymas,Mexico;Florida;Corpus Christi,Texas;trawled off Aransas Pass,Texas ... .50¢

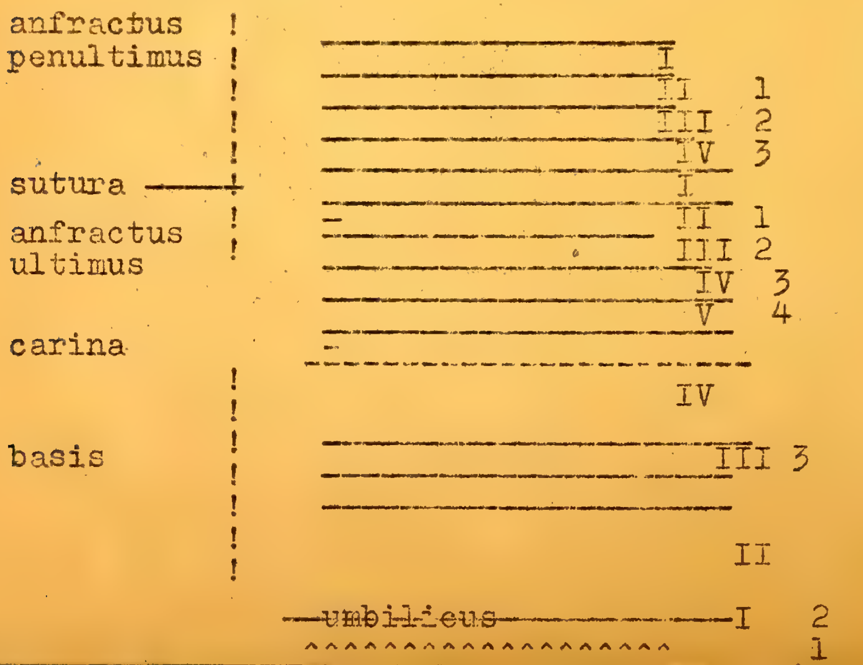
The cingula, resp. vittae, are given in Roman numerals.
The sulci are given in Arabic numerals.

Superior
anfractus penultimus
I cingulum suturale
1 sulcus spiralis
II cingulum infra-suturale
2 sulcus " secundus"
III cingulum tertium
3 sulcus " tertius"
IV cingulum supra-suturale = cingulum quartum
sutura

Discus
anfractus ultimus
I cingulum suturale= cingulum supremum= zona suprema = cingulum superius= zona superior= vitta superior = cingulum primum
1. sulcus spiralis = sulcus infra-suturalis = sulcus primus
II cingulum infra-suturale= vitta infra-suturalis= cingulum secundum
2 sulcus " secundus"
III area media= cingulum tertium
3 sulcus " tertius"
IV cingulum penultimum= cingulum basale(superius)= cingulum quartum
4 sulcus peripheralis = sulcus (superior) peripheriae= sulcus quartus
V cingulum ultimum= cingulum basale(infimum)= cingulum marginale(pars superior)= cingulum peripherale(pars superior) = cingulum inferius= cingulum quintum
carina

Discus Inferior
3. Basis
IV cingulum " externum" = cingulum marginale (pars inferior) = cingulum peripherale (pars inferior)
3 sulcus " externus" = sulcus (inferior) peripheriae
III cingulum infra-peripherale
II area basalis media
2 sulcus " medius"
I cingulum proxumbilicale = cingulum internum
1 sulcus " internus"
crenae umbilici
umbilicus

****



Diagramatic fig. showing different cingula and sulci which may occur in a specimen of Archetectonica

ARCHECTONICIDAE

Comments on the Taxonomy

The vagaries of systematic nomenclature are, as usual, very apparent. In the first place many of the serious and professional scholars and particularly those of Europe, refuse to accept the famous and fantastic Röding names, and follow the proceedure of Thiele in this instance with Solarium Lamarck,1799 (and in the synonymy, Archetectonica (Bolten) Röding,1798). Opinion 96 notwithstanding, many consider it ridiculous and refuse to follow. However, authors of the United States are very submissive and faithfully obey all laws without questioning the reasonable--ness thereof. Hence, we accept Archetectonica . Of course, every book written over a period of a century and a half was written by an author who never heard of that sales catalogue scribbled by Röding to sell Bolten's shells.

Result is that we accept in our lists:

Archectonica Röding,1798 (Syn.:Solarium Lamarck,1799). Type (by Sub. Des. Gray,1847), Archectonica perspectiva (Linnaeus).

The usual confusion with the other genera of the family may be expected. Thiele accepts Torinia Gray,1842 and places in the synonymy Heliacus Orbigny,1842. Dr. A. Myra Keen and many others reverse this and accept Heliacus Orbigny,1842 with Torinia Gray 1847 in the synonymy. A few others by some stretch of the immagin--ation, manage to accept both, i.e. Kuroda and Habe,1952. We will follow Keen et al with Heliacus regardless of the fact that Dr. R. Tucker Abbott et al prefer Torinia Gray. Did anyone ever suggest that a pair of dice might settle such foolishness with some dispatch? They may indeed be two separable genera.

GLOSSARY

The family Archetectonicidae involves a number of terms which must be understood in order to intelligently study the species involved. It is with some trepidation that I suggest a perusal of the following data, but otherwise I can see no possible manner by which the beginner could separate one species from another. Furthermore, most of the species have been discussed in Latin, French,German etc. referring to the terms mentioned below. Frankly, I consider this rather a difficult study. Perhaps the novice should stop right here if indeed he has read this far; we do not wish to discourage him.

Many names have been used by authors for the different cingula (zonae,vittae,lirae) and the sulci of the Archetonicidae, and in some cases different authors have applied the same name to different cingula. I will attempt a brief outline of the terms I am using. If anyone has read this far, may I suggest that the reader have in hand a specimen of Archectonica maxima Philippi which is one of the species where all sulci and cingula are present.

The attached chart may be of some assistance to the serious student. Reference Ch. Bayer ,1940.

specimen shells from

John Q. Burch,
4206 Halldale Ave.,
Los Angeles 62, Calif.

Please appreciate the fact that in these lists I am not a professional scholar revising a family of mollusks. All of the species before me are seldom listed. I am another student and collector making notes as I arrange my own shells. Spec--imens offered for distribution are duplicates after I have the best I can see in our own cabinets.

I have been receiving letters asking how I overlooked certain species. The answer may be either that I do not have them, or if I do we wish to keep all we have. There are other times when it would seem boresome to list a hundred or more species of one group.

Advice and correction of errors is always solicited, and will be sincerely appreciated.

We are now open by appointment only. However, we will be pleased to have any of our friends pay us a visit if we are at home. Please phone before coming to see us. Ax 3-5710 .

Postage. We expect our customers to pay the postage on shell parcels and if not listed, we will appreciate it if you will note the amount and reimburse us. We are also required to ask for the 4% state sales tax on all parcels mailed to a California address.

MINUTES OF THE CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

The Conchological Club is now meeting at Clifton's Cafeteria, 648 S. Broadway, Los Angeles at 6:30 P.M. the first tuesday of each month. The next meeting will be held on April 7.

It is not obligatory that you have dinner with us. Please come to the meetings at your convenience.

Mr. E.P. Chace has just received a letter from our associate member Walter J. Eyerdam of Seattle. Mr. Eyerdam reports that he is working long shifts seven days a week building war ships for the United States. This allows him no spare time for his shell correspondents.

Some time ago Mr. Eyerdam wrote the editor that his nephews are serving as officers in the United States Army. Mrs. Eyerdam and daughter are visiting relatives in the middle west.

Virginia Putney has written from Glendale that she has Red Cross work every tuesday night and regrets her inability to be with us until perhaps in June.

E.V. Edmonds has been working day and night with the medical corpe of the California State Guard. While we miss the jovial company of Mr. and Mrs. "Eve", permit us to add that we appreciate the fact that nothing should be allowed to interfere in any way with the only really important work at this time. Don is serving his country in Honolulu.

The following publications have been received during the past month:

California Fish and Game, Vol. 28, No. 1, January 1942 contains a series of interesting articles about the introduction of exotic fish and animals into California. The 1941 Pismo Clam Census is another article of interest.

"List of Mollusca of Grand Isle, Louisiana, Recorded From the Louisiana State University Marine Laboratory", published Feb. 19, 1942 in the occasional papers of the Marine Laboratory, Louisiana State University, Baton Rougue, La. Mr. Harold W. Harry is the author of his well written faunal list and discussion of the ecology.

The bulletin of the American Malacological Union contains a number of papers of interest. This issue not only gives the proceedings of the Eleventh Annual Meeting at Rockland and Thomaston, Maine and the revised membership list but prints the papers presented at the Symposium on Methods of Collecting and Preserving Mollusks. "Collecting and Preserving Fresh Water Snails" by Frank V. Baker, "On Collecting Fresh Water Mussels" by Henry van der Schalie, "Land Shell Collecting" by William J. Clench, "Shore and Shallow Water Collecting" by B.R. Bales, "Dredging for Every One" by Tom Burch, "Four to Four Hundred Feet Beneath the Sea" by Jeanne S. Schwengel, and "Diving as Applied to Shell Collecting" by Thomas L. McGinty.

Membership in the American Malacological Union is open to anyone interested in the study or collection of shells. The annual dues are one dollar. There is no initiation fee. If you wish to join send your dollar and name and address to the financial secretary, Mrs. Harold R. Robertson, Buffalo Museum of Science, Buffalo, N.Y.

The additional numbers of Johnsonia were received this month. No. 2 on the Genus Ficus (Pyrula) and No. 3 on the Genera Dosinin, Macrocallista and Amiantis.

For the convenience of subscribers a yearly rate of $3.00 has been fixed to cover the first 100 pages. Individual copies may, of course, be purchased as issued but the annual rate is not only less expensive but much less trouble for all concerned.

MINUTES OF THE CONCHOLOGICAL CLUB OF SOUTHERN CALIFORNIA

The Conchological Club of Southern California met at the Clifton Cafeteria at 640 S. Broadway, Los Angeles at 7:30 P.M., April 7, 1942 with 21 members and a visitor, Mr. Todd Campbell of Santa Monica, present.

The meeting was called to order by the vice-president, Mr. E.P. Baker. Communications consisted of a letter from Mr. J.M. Marsh reporting it to be impossible for he and Mrs. Marsh to attend club meetings in the future. The secretary was directed by a vote of the club members to express their regret at their absence. The serious illness of Mrs. De Rose Rutherford and the death of her mother, Mrs. Mathews, was reported and the sending of flowers in the name of the club for Mrs. Mathew's funeral was reported by the secretary. The club directed the secretary to express to Mrs. Rutherford the sympathy at her illness and bereavement.

A bill was allowed the secretary for an itemized list of expenses incurred for the club in the amount of $15.02.

Mr. E.J. Post returned from his recent trip to Florida bringing a number of interesting shells for club members and a report of many changes there due to war activities.

Mr. A.M. Strong gave a talk, not on Epitonidae because some of the required material was not availayle, but on Acteocinidae, a family we all know a little about, but generally such a very little. He soothed the vanity of a number of us by saying that, though many persons know many of the species, the genera were in such a decided muddle that no one had as yet been able to straighten them out. He then gave us such clear definitions of the species and their rannge that there will no doubt be a few less clouds on the conchological horizons of quite a number of collectors. His illustrative material was complete and most interesting.

Following this talk was one by Mr. Ralph Borman. He too, selected a subject other than the one listed, as all members are priviledged to do. His chosen subject was Tritonalia, of which he had recently collected some very beautiful and rare specimens.

Considerable discussion on various points of identification and collection localities followed his talk about this very beautiful and hard-to-work-out genus. The meeting was then adjourned.

Effie M. Clark, Secretary.

"Natural History Hobbies", a booklet of 24 pages, published by the Cincinnati Museum of Natural History as Miscellaneous Publication No.3, on April, 1942 was received. In the paper Mr. Ralph Dury has an article entitled "Shell Collecting" but there are other articles of interest to some of our members such as "Collecting Fossils", "Collecting Rocks and Minerals" etc.

This reporter has just had returned to him two more letters addressed to shell collecting correspondents in the Philippine Islands. Both were stamped with the Returned to Sender - Service Suspended. These letters left Redondo Beach stamped Nov. 10, 1941 and seem to have been right through the action. A short time ago we received two letters returned addressed to persons in France over a year ago. We wonder where they have been in the meantime. A short time ago we did get a letter from Mr. Wm. Griffith on the Island of Malta. A number of us have exchanged with him in happier times. He reported that he and his were all right at that time. We wish we could be as sure of our friends in Poland, Latvia etc. We have had no word from them since the beginning of the Hitler rampage.

Dr. Maxwell Smith has announced another new shell book to be ready in May -- "A Review of the Volutidae (Volutes)". Those interested my order directly to Maxwell Smith, Box 92, Lantana, Florida. Price $6.80.

Our associate member Mr. A.Sorensen of Pacific Grove has just sent us some very fine photographs of many fine shells which he brought back with him on his recent trip to West Mexico. Some of these plates should be printed and made available to more students of this fauna. Mr. Sorensen has the idea so seldom seen of using a growth series of a species. For example one of the plates of West Mexican Conus is arranged in rows of specimens ranging from the juvenile to the adults with each line devoted to one species. By using this plate it should be an easy matter to classify the following species: Conus princeps, purpurascens, virgatus, regularis, comptus, mahogani, perplexus, orion, gladiator, and nux. He has treated other genera in a similar manner.

We have a note from our secretary, Mrs. Effie Clark advising us that Miss Edna T. Cook had just paid her a visit with "something less than a pint of Odostomias for classification", and the additional note that "the afternoon was too short". The ladies must have spent most of the afternoon visiting.

Mr. and Mrs. E.P. Chace honored us with a visit last sunday afternoon. They brought a tray of specimens of Tritonalia. Mr. and Mrs. Ralph Borman, with their newly classified specimens of T.fusconotata Dall etc. have caused little short of consternation to some of us. We read and studied all the afternoon and regret to report that we are still not too happy about changing all of the old labels in our collections of Tritonalia. It is obvious that IF any of the names in this group are to be finally placed in synonomy the other names in common usage are all older than T. fusconotata Dall 1919.

The editor of this publication would be very happy to publish a report on the relative taxonomic standing of Muricopsis and Muricidea and their exact distinctions. If any of the members think they have Muricopsis erinaciodes Val. we would appreciate knowing it and why.

The tides for the month of May will be of little use to the collector who does not carry a lantern. The best day time tides follow:
Wed. May 6 - 8:31 A.M. minus 0.3
Thur. " 7 - 9:43 A.M. " 0.2
Fri. " 8 - 10:43 A.M. " 0.1

The early risers and those wishing to collect in the bays may be able to do very well the first week in June. These tides follow:
June 1 - 5 A.M. minus 1.5
2 - 5:54 " 1.2
3 - 6:52 " 0.8
4 - 7:55 " 0.3
5 - 8:58 plus 0.1

IMPORTANT

All members are urged to please mail all news about shells, shell books, shell collectors, shell trips and localities etc. etc. to your reporter. John Q. Burch, 1611 Elena Ave., Redondo Beach, California.

Our next meeting will be held at Clifton's Cafeteria, 648 S. Broadway, Los Angeles, Calif. on the evening of May 5. We will have dinner at 6:30 P.M. and the meeting will convene at 7:30 P.M. in the Pine Room.

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